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Subject Index

- A**
- Abrasive Machining**
 Deburring by abrasive belt machine .. 48, Nov. 6
 Flexiband 24 deburring machine .. 49, Dec. 18
 Hard plate lapping becomes free abrasive machining .. 43, Dec. 11
 Mega Master model 2-94 abrasive belt machine .. 53, June 5
 Rowland 306C multiple head abrasive belt grinder .. 61, Nov. 20
- Adaptive Control**
 Adaptive control 'package' debuts .. 49, Aug. 28
 R & D ideas for machine tools .. 19, Sept. 25
- Adhesives**
 Adhesives challenge for major role in metal joining .. 52, April 17
 Elastic ceramic has potential .. 7, April 10
 Elcometer 106 adhesion tester .. 55, June 12
 Induction curing speeds adhesive bonding .. 81, July 3
 Low temperature curing epoxy adhesive .. 7, Mar. 13
 Mixer-filler for Pyles sealant guns .. 63, Oct. 16
- Aeronautics**
 Britain's aviation industry flies high .. 21, Sept. 25
- Aircraft Production**
 Making the jet engines of the future .. 57, May 22
- Alloys**
 Aerospace's do-it-yourself materials .. 7, Jan. 31
 Antimony cast iron a substitute for bronze .. 7, Sept. 11
 Assessing weldability of high temperature alloys .. 7, Oct. 30
 Dispersion strengthened lead alloys .. 7, Oct. 2
 First commercial superconductor motor .. 7, Feb. 14
 Hardwearing welding alloy .. 7, May 15
 High temperature self-lubricating bearing material .. 7, Nov. 20
 Improved alloy for resistance wires .. 7, Jan. 31
 Lead-infiltrated iron resists wear .. 7, Oct. 23
 New high-damping alloy .. 7, April 10
 New high-strength aluminium alloy .. 7, Dec. 18
 New high-temperature alloys for gas turbines .. 7, Aug. 28
 New 'quiet' metal cuts vibration .. 39, April 17
 New super formability material for car bodies .. 15, Oct. 30
 New titanium alloy .. 7, Aug. 7
 New zinc alloys can be sand cast .. 19, Nov. 27
 Ti and Zr go into more heat exchangers .. 24, June 26
 Tungsten alloy is strong yet ductile .. 7, Mar. 13
 UK titanium continues to expand .. 16, May 15
- Aluminium**
 Alcoa aluminium jig plate .. 55, Sept. 25
 Aluminium alloys forged to closer tolerances .. 43, June 12
 Aluminium gets hardest yet skin .. 7, Jan. 10
 Aluminium products to cost more .. 20, June 12
 Aluminium sheet flattener rolls or stretches .. 7, Feb. 21
 Infra-red radiant heat solders aluminium coils .. 7, Dec. 11
 Market change likely from Alcan/Booth deal .. 17, Oct. 9
 New high-strength aluminium alloy .. 7, Dec. 18
 Oxygen melts aluminium 50% faster than usual .. 7, Sept. 18
 Powder aluminizing beats formability problem .. 43, Oct. 16
 Reducing machining distortion in aluminium forgings .. 51, Feb. 21
 Smelter decision part one—at last .. 23, June 5
- Assembly**
 American Ford joins mouldings with bonding tape .. 7, May 1
 Assembly machine is computer controlled .. 56, Sept. 11
 Automatic assembly is catching on .. 15, Sept. 18
 Automatic assembly lessons from lampmaking .. 47, Feb. 14
 Aylesbury UVS 100 automatic feed screwdriver .. 61, Oct. 16
 Brainstorming cuts leadtimes .. 53, Mar. 20
 Carousel assembly improves gearbox quality .. 33, May 8
 For sale, 40 years of assembly machine building .. 50, April 3
 I. Prod. E. opens experience bank on automatic assembly .. 59, Dec. 4
 Japan's growing assembly machine market .. 50, Oct. 23
 Lampmaking lights the way to automatic assembly .. 56, Jan. 31
 Liquid nitrogen shrinks problem to size .. 7, Dec. 4
 NC runs an assembly centre .. 33, Oct. 30
 On-the-spot 'freezing' smooths interference-fits .. 7, April 3
- Australia**
 Australia—good market for NC machine tools .. 19, Oct. 16
- Automatics**
(see separate section for NC lathes, Vertical Lathes and Copy Turning)
 Ajax plugboard controlled capstan lathe AJ.138 .. 61, Oct. 23
 Alexander-Efomatic Model 9AC/S .. 175, June 19
 B & S thread chasing attachment .. 46, Aug. 14
 Better accuracy from multiis by beating indexing errors .. 53, July 17
 Boley 4HRA-42 automatic capstan .. 93, July 10
 Broadbent-Schofield CAL 1210 chucking automatic .. 164, June 19
 Brown & Sharpe Mini-16 single spindle auto .. 91, July 3
 Brown & Sharpe 2B single-spindle chucker .. 89, July 3
 Brown & Ward series 375 single spindle auto .. 91, July 3
 BSA Acme-Gridley 1in. BRAN-6 multi-spindle auto .. 94, July 3
 BSA 328LC single spindle chucker .. 94, July 3
 Butterworth E type automatic range .. 20, Aug. 7
 Camless and plugboard autos .. 158, June 19
 Camless autos make short orders pay .. 29, Dec. 18
 Chucking for Wickman 1in. six spindle auto .. 20, Jan. 10
 Churchill-Redman Red Century 450P chucker .. 170, June 19
 Conomatic 2 1/2in. six-spindle bar auto .. 90, July 3
 Decomat 50 turret automatic .. 175, June 19
 Electric cam accelerator pares auto cycle times .. 39, July 17
 Habegger F 38 automatic lathe .. 177, June 19
 HA15 single spindle auto .. 50, Dec. 18
 Heinemann RA 63 turret lathe .. 170, June 19
 Herbert 3M automatic turret lathe .. 161, June 19
 Herbert 2 Auto Flashcap .. 52, May 8
 Hesika RA 44 automatic .. 175, June 19
 Index ER camless turret automatic .. 39, Oct. 2
 Index E-type single spindle automatic .. 169, June 19
 Meuser type M OPU automatic centre lathe .. 179, June 19
 Minganti MT3 turret lathe .. 179, June 19
 Multi-drilling boosts auto utilization .. 87, April 24
 Pittler Pimat 63/200 automatic turret lathe .. 179, June 19
 Pittler Pirette automatic turret lathe .. 164, June 19
 Quick-change auto has variable-speed control drum .. 49, Feb. 7
 Quick-change makes smaller batches economic on autos .. 35, Aug. 14
 Ramo-Polybutic automatic lathe .. 103, July 3
 Revomat 17 ZKR automatic turret lathe .. 164, June 19
 Right automatic centre lathe .. 171, June 19
 Saim'p TAI automatic production lathe .. 59, July 17
 Ward 7DS with Nickols conversion .. 61, July 24
 Warner Swasey Asquith O-AC chucking automatic .. 171, June 19
 Warner Swasey Asquith 2AC/B chucking & bar auto .. 101, July 10
 Wickman CSA 600 compound slide auto .. 189, June 26
 Wickman 1 1/2in. single spindle automatic .. 89, July 3
 Wickman SCA 12 single spindle chucker .. 169, June 19
 Wickman 6in.—8 spindle chucking auto .. 90, July 3
 Wickman SOA 216 single spindle multi slide automatic lathe .. 161, June 19
- Automation**
 Cross to build automation plant in UK .. 17, Sept. 4
- Automobile Production**
 American Ford joins mouldings with bonding tape .. 7, May 1
 Assembly machine is computer controlled .. 56, Sept. 11
 Car export production highest ever .. 20, May 1
 Car export production soars .. 19, April 3
 Car output hindered by disputes .. 19, Mar. 6
 Car output still lifting .. 17, Feb. 7
 Don't rock the home market says car industry Neddy .. 16, July 10
 Export's keep up car production .. 24, June 5
 Finish rolling points the way to gear production revolution .. 46, Nov. 20
 Ford endorses new single leaf vehicle springs .. 7, May 22
 Foreign cars use British sintered parts .. 47, Nov. 6
 Herbert-Ingersoll wins Australian contract .. 16, Jan. 24
 Honda cuts brake drum costs .. 40, Feb. 14
 Induction curing speeds adhesive bonding .. 81, July 3
 Japanese car industry uses .. shell moulding in a big way .. 60, Mar. 6
 Japan's motor miracle .. 43, Jan. 24
- B**
- Backing Britain**
 'Back Britain' campaign gains momentum .. 16, Jan. 17
- Bearings**
 Dexter ball bearing slideways .. 71, Feb. 28
 Shaving bearing races .. 7, Nov. 6
 Timken's biggest for Italian boring mill .. 45, Dec. 18
 Unimatic NR slides and sliding tables .. 61, April 17
- Belgium**
 Belgium looks for Common Market growth .. 17, July 10
- Bending**
 Brookes 5 ton programmed press bender .. 67, July 10
 Carver press bend unit .. 59, Sept. 18
 Iscot powered rotary forming machine .. 67, Feb. 28
 Lang Ondomat-V cold tube benders .. 79, Feb. 21
 Sedgwick plate bending and forming brake press .. 68, July 10
 Ste-Co. Initial pinch plate benders .. 69, Jan. 31
- Beryllium**
 Beryllium brake discs for aircraft .. 24, June 26
- Bonding**
 Diffusion bonding makes titanium honeycomb panels .. 7, Sept. 18
 Electrical bonding of glass to metal .. 7, Sept. 25
- Boring and Boring Machines**
 A look at block boring tools .. 63, July 10
 Asquith 4RM ram type horizontal boring and milling machines .. 218, June 26
 Butler Hydabore 324 horizontal borer .. 212, June 26
 Cerutimatic 5-axis boring and milling machine .. 97, July 10
 Churchill HB1200 NC horizontal boring and milling machine .. 219, June 26
 Churchill HB 600 horizontal boring, milling and drilling machine .. 212, June 26
 Craven deep hole boring and trepanning machine .. 245, June 26
 Davis HFB2 fine borer .. 20, Dec. 4
 Dixi 5S horizontal jig borer .. 236, June 26
 Elga precision optical jig borer .. 52, Nov. 27
 Faster boring bar changeover .. 35, Sept. 25
 Hauser JNC jig borer .. 241, June 26
 How Dixi keeps machine errors small .. 48, July 17
 Hyop 120 S NC jig borer .. 242, June 26
 Kearns-Richards SE50 borer/miller .. 212, June 26
 Kearns-Richards S type NC horizontal borer .. 217, June 26
 Kolb OPCO 70 optical jig borer .. 241, June 26
 Kovosvit WKV 63 jig borer .. 75, Jan. 10
 Moore 11B jig borer .. 60, May 29
 Moore 11B jig borer .. 242, June 26
 OMT optical rotary table .. 186, June 19
 Retracting ceramic inserts speed cylinder boring .. 66, Feb. 21
 Scharmann horizontal boring and milling machine model FB 75 .. 61, July 17
 Scharmann NC facing cum boring head .. 217, June 26
 SIP MP-3KT jig borer .. 234, June 26
 Stuart Davis new design fine boring machine .. 217, June 26
 Stuart Davis plugboard controlled fine borer .. 20, April 17
 Thread cutting on a vertical boring mill .. 52, April 3
 Tiefbohr T20-500s deep hole borer .. 246, June 26
 Uma B.F.56 boring and milling machine .. 56, Jan. 3
 Waide jig boring and milling machine .. 49, Dec. 18
 W & B 43in. NC vertical boring mill .. 60, Oct. 16
- Brazil**
 Brazil's expanding machinery market .. 19, Sept. 4
- Brazing**
 Aluminium brazing without flux .. 7, April 24

Braze joint quality tested electro-magnetically .. 7, Jan. 3
 Brazing alloys for the hot spots .. 7, April 10
 New furnace brazing material .. 7, April 3
 Solbraze armature brazing machines .. 59, May 15

Brazing and Broaching Machines
 Beating the bugs in pot brazing .. 46, Aug. 28
 BSA-Detroit 1042U vertical broach .. 61, Aug. 7
 'Impossible' job done by broaching .. 64, Mar. 6
 Lapointe SPD 7 by 6in. vertical broach .. 61, July 17

C

Calculators
 InComTec probability calculator .. 59, Oct. 23

Canada
 Canadian tariff change aids UK exporters .. 16, Feb. 21

Capital Expenditure
 Engineering spending to rise .. 17, Oct. 23

Capital Investment
 Bigger—but not always better .. 55, Sept. 18
 Capital spending falls .. 17, Oct. 9
 Capital spending slightly up .. 17, Sept. 11
 Manufacturing firms spend less on plant .. 19, July 10
 New plant key to productivity .. 16, Sept. 18
 US engineering firms to step up spending .. 19, Nov. 13
 US industry modernizes its plant .. 19, Dec. 11

Carbides
 Coating solves wear problems on computer printouts .. 7, Mar. 13
 Guide to sintered carbides .. 65, Jan. 31
 Czechs add silicon carbide to improve nickel plating .. 7, Feb. 28
 How to bend a carbide .. 7, Aug. 14
 How to extend your press tool life .. 57, Sept. 11
 Laminated carbides prove their worth .. 143, June 26
 Morrisflex miniquills .. 53, June 5
 Titanium carbide is 100% dense .. 7, Feb. 28
 What happens 'twist chip and tip?' .. 43, Mar. 20

Casting
 Antimony cast iron a substitute for bronze .. 7, Sept. 11
 Automatic bottom pouring in key casting role .. 43, April 10
 Automatic low pressure diecasting .. 44, Jan. 17
 Big step towards the automated foundry .. 79, Mar. 6
 Britain's new foundry industry .. 42, July 17
 Calcium chloride prevents casting scale .. 7, Jan. 31
 Casting: tomorrow's moulding material could be today's newspapers .. 7, Jan. 17
 Cold-cure coremaker creates worldwide interest .. 39, July 24
 Cold cure process for cores and moulds .. 7, April 3
 Core curing with microwaves .. 7, Sept. 4
 Fame Mk IV automatic shell core blower .. 71, Feb. 21
 Fork trucks add safety to hot-metal transfer .. 60, Sept. 11
 Impregnate for porous castings .. 7, Oct. 23
 Investment casting pays on short-run part .. 56, Mar. 20
 Making the jet engines of the future .. 57, May 22
 New epoxy resin for pattern making .. 7, Feb. 21
 New unit cuts time for vacuum casting .. 7, June 12
 Pressure diecasting of ferrous metals .. 56, July 10
 Quicksetting casting stopper .. 7, Sept. 18
 Readings & Holland automatic lead caster .. 63, Mar. 27
 Rolls-Royce foundry attacks casting costs .. 17, Dec. 18
 Tougher grade of SG iron developed .. 7, Jan. 10
 UK Foundry adopts Soviet fluid sand technique .. 7, Oct. 30
 Welded composites cut foundry costs .. 55, May 22
 Will Acurad force casting reappraisal? .. 37, Feb. 14

Ceramics
 Retracting ceramic inserts speed cylinder boring .. 66, Feb. 21
 Stronger ceramics are possible .. 7, Mar. 20

Chemical Milling
 Photoetching extends its horizons .. 47, Sept. 25

Cleaning
 Aluminium cleaner and passivator .. 7, Mar. 27
 Darenth Westwood washing unit .. 20, Oct. 16
 Flow-line blast cleaner uses robot workholders .. 51, Sept. 4
 Griffith automatic washing plant .. 65, Mar. 27
 Panelcraft bar degreasing machine .. 59, Aug. 7
 Sablux 130 blast finisher .. 55, July 24

Coatings
 Aluminium gets hardest-yet skin .. 7, Jan. 10
 Epoxy powder coating gives high finish at low cost .. 7, Aug. 28
 Metal coatings formed by electroplating .. 7, Mar. 6
 Organic coatings increase metal's fatigue life .. 7, Aug. 21
 Powder aluminizing beaus formability problem .. 43, Oct. 16
 Process for longer-life PTFE coatings .. 7, Feb. 21

Cold Forming

Cold drawing process produces complex tubular parts .. 7, Oct. 9
 Greenbat capstan wire drawers .. 20, July 24
 Nedtschroef HPT3 combined bolt making unit .. 74, July 10
 Phosphating compound needs no accelerator .. 24, June 26
 Speedmaster bolt heading machines .. 59, Jan. 3
 Why not more cold forgings? .. 44, Mar. 27

Company News

Borg-Warner build new plant in Wales .. 16, Aug. 14
 Cincinnati forms new UK sales organization .. 16, Sept. 4
 Compressor makers to merge .. 23, May 8
 K & T rationalize—and expand .. 16, Nov. 6
 Mercer, OMT plan joint development .. 16, July 24
 Mr. J. Hodgkinson (caption) .. 23, July 3
 New home for H. W. Ward's designers .. 19, July 24
 Optical Measuring Tools Ltd., High Wycombe, were presented with (caption) .. 16, Sept. 18
 Redman speeds up expansion programme .. 17, Nov. 6
 Things are expanding for Moog .. 17, Sept. 11
 Top is the target through specialization .. 19, June 26
 Unbrako's new rod and bar mill opened .. 16, June 12
 Why Ferranti chose Grundig .. 15, July 10

Components

Hardy Spicer quick release coupling .. 63, Mar. 27
 Ringspann freewheeling chain .. 47, Dec. 18
 Telemecanique pneumatic time delay relay .. 54, May 8

Composite Materials

Steel-plastic sandwich has high-damping properties .. 7, Oct. 2

Computers

Computer controls metallurgical testing .. 7, Sept. 25
 DIY computer simulation technique shows industrial promise .. 20, April 24
 9100A electronic desk calculator .. 57, Aug. 21
 On-line plotting of computer data aids machine tool design .. 54, Jan. 10
 The functions of a postprocessor .. 54, Mar. 13

Consultancy

PERA wants free consultancy for Scotland .. 16, Oct. 16

Control

Argos rotary edge switch .. 71, Feb. 21

Control Systems

Airmec-AEI PTL 100 point-to-point system .. 135, July 3
 BAC Autograt 400 DRO .. 127, July 3
 Ekco M/c tool and NC simulator .. 131, July 3
 Electro-hydraulic servo systems .. 135, July 3
 EMICON S1000 control system .. 133, July 3
 Ferranti Multiax NC system .. 131, July 3
 Hepworth 'Dial-Set' sequence control .. 129, July 3
 Honeywell HSM 30 servomotor .. 57, Feb. 14
 Ian Nickols Musclematic sequence control .. 129, July 3
 Nickols (EMI) control of Herbert monoslide .. 130, July 3
 Olivetti Programma 101 desk-top computer .. 127, July 3
 O-ring seals serve as valves .. 7, July 17
 Plessey Fluidic 228 NC system .. 131, July 3
 Plessey 400 series DRO .. 128, July 3
 Plessey integrated circuit systems .. 130, July 3
 Rotax DRO .. 128, July 3
 Systematized industrial automation .. 19, May 1
 Telemecanique control elements .. 127, July 3

Coolants and Cutting Fluids

Coolant supply for high-speed grinding .. 34, Dec. 18
 Cutting compound for tough materials .. 7, Feb. 28
 Double the drilling speed with pulsating coolant .. 34, Oct. 2
 Fly-ther-and-sell effort wins export orders .. 19, May 29
 IBM Portable pump unit .. 63, Sept. 11
 Making the most of your coolant .. 32, Nov. 27
 Single cutting oil replaces many grades .. 7, May 29
 Tilghman pulser coolant pump .. 61, April 3

Copper

Author faces critic on copper welding techniques .. 58, May 29
 Copper price system changed .. 20, June 12

Copy Milling

Alexander 1:1 copying machine .. 71, Jan. 10
 Bridgeport with True-Trace 180deg. copying .. 20, Oct. 2
 Gettys 3D electronic tracing unit .. 20, Oct. 16
 Kampf F4 copy milling machine .. 57, Aug. 21
 Redesignated Alexander 1:1 hand duplicator .. 49, Oct. 30
 Tandee copy milling attachment .. 69, Feb. 21
 Try-Deta Cofres universal miller fitted with copying equipment .. 85, Dec. 4

Copy Turning

Hepworth copying equipment for Colchester Triumph 2000 .. 65, Oct. 9

Corrosion

Fast test measures corrosion of metals .. 7, June 12

Corrosion Prevention

New rivet gives corrosion protection as well .. 7, Mar. 27

Counting Devices

Elasta bi-directional counters .. 69, Jan. 10

Cutting-off Machines

A new slicing machine, designed and manufactured by Clifton and Baird .. 6, Oct. 16
 Canada C35 cutting-off machine .. 55, Feb. 14
 Cave-Cut 4A cutoff machine .. 55, May 15
 Cutoff saw keeps pace with System 24 .. 50, Aug. 21
 Drilling and facing unit for Bimax automatic cutoff saw .. 55, Sept. 25
 English Abrasives 2½hp. cutting-off machine .. 55, May 8
 Kaltenbach HDM 1300 circular cold saw .. 57, Jan. 3
 Liliput miniature circular saw .. 63, Oct. 16
 Mexico C41 semi-automatic saw .. 55, Sept. 25
 Orlandi automatic sawing and centering machine .. 52, June 5
 Porter heavy steel and cable cutting tools .. 59, May 15
 Russell Rockers' fully automatic rocking head circular cold saws .. 24, Sept. 25
 Shear instead of sawing .. 7, Nov. 6
 The Sawmaster bandsaw .. 63, Dec. 11
 Trennjaeger ST256 cold saw .. 64, Dec. 11
 Wickstead 8in. Medium hacksaw .. 59, Aug. 21
 Wickstead universal circular saw .. 60, Sept. 18

Cutting Speeds

Cutting temperature control for machine tools .. 7, Sept. 25
 Tool-change time governs optimum cutting speed .. 55, Jan. 3

Cutting Tools and Holders

Altercut reamers .. 64, Dec. 11
 Bristol Erickson heavy duty NC toolholder .. 65, Feb. 28
 Brooke-Manchester cutoff and grooving tools .. 111, July 3
 Carbide cutoff tools on bar autos .. 39, Nov. 27
 Cintimatic quick change tool clamping system .. 20, Dec. 18
 Clarkson new Hiflow milling cutters .. 102, July 3
 Coolant supply for high-speed grinding .. 34, Dec. 18
 Correction tables for raked circular form tools .. 52, May 15
 Correction tables for raked circular form tools .. 58, Oct. 9
 Correction tables for raked circular form tools .. 36, Oct. 30
 Correction tables simplify raked circular form tool design .. 37, May 8
 Diagrit disposable insert toolholders for automatics .. 20, Nov. 6
 Dixi tungsten carbide drills and slitting saws .. 57, May 15
 Dormer D x D trepanning cutters .. 241, June 26
 Eclipse VH & HM2 tool bits .. 55, July 24
 Floating disc reamer .. 55, July 24
 Galex S.P. recessing head .. 61, Aug. 7
 High speed routing cutter for Molins milling machine .. 20, Jan. 3
 Indexable insert tools for threading .. 46, Dec. 11
 Indexable tool tips cut boring costs for Austin .. 35, May 8
 Inley carbide reamers .. 81, Dec. 4
 Insey Master spiral drills .. 65, Feb. 28
 Laminated carbides prove their worth .. 143, June 26
 Mars 15deg. approach angle face mill .. 61, Nov. 6
 Max-e-flow spiral flute carbide cutters .. 54, May 8
 Mohar toolholder for wheel profiling .. 53, June 12
 Proflite Max-cut and high shear milling cutters .. 150, June 19
 P.T.A. solid carbide turbo-drills .. 242, June 26
 Sandvik square shoulder facemills .. 129, June 19
 Sandvik T-Max P toolholders .. 108, July 3
 Sandvik T-Max threading tools .. 107, July 3
 Scully Jones JAS floating toolholder .. 59, Aug. 28
 Secodex S toolholder range .. 112, July 3
 Simplex 1½in. milling chuck .. 61, Oct. 23
 Single-cut universal reamer .. 60, May 29
 Solving spade drill problems .. 33, June 12
 Steel-bonded carbide boring bars kill chatter .. 7, Dec. 18
 Two new products from Sheffield Twist .. 48, Dec. 11
 Ultimil end milling cutter .. 62, Nov. 6
 What form for form tools? .. 49, Feb. 28

Czechoslovakia

Czechs push on with machine tool trade .. 19, Oct. 9

D

Deburring

Burflex deburring and flash removal devices .. 61, Sept. 11
 Continuous wire weld flash stripper .. 83, Dec. 4
 Roto-Finish Osromidjet 1.5 .. 71, Jan. 10
 The long and short of vibratory deburring .. 38, Nov. 27

Design

Ferranti escalates war on pre-production time .. 19, May 8

Development Areas

Regional policy begins to bite .. 15, Feb. 21

Diamonds

Centreless grinding with big diamond wheel .. 7, July 17
 Ceramic-magnet grinder ups productivity .. 42, Aug. 7
 Diamond grinding wheel has high-accuracy form .. 41, Mar. 27
 High-accuracy form dressing featured on two new grinders .. 54, April 3
 New diamond grit grinds soft metals .. 43, Feb. 14
 New way to make diamonds? .. 7, July 17

Diecasting

American expert gives British diecasting top rating .. 54, Oct. 23
 BSA/SMT 120 ton cold chamber machine .. 40, Oct. 2
 BSA/SMT 220H hot chamber machine .. 44, Oct. 2
 Bühler Z-160-D hot chamber machine .. 51, Oct. 2
 Castmaster C-509 A Mark II .. 53, Oct. 2
 DIMO type DM2 low-pressure diecasting machine .. 59, Oct. 2
 Dynacast Model A automatic diecasting machine .. 49, Oct. 2
 Economical low-pressure diecasting machine .. 55, Oct. 2
 Economical-low cost, low pressure diecaster .. 20, Oct. 2
 E.M.B. No. 12B hot chamber automatic machine .. 49, Oct. 2
 E.M.B. No. 8 automatic hot chamber diecasting machine .. 44, Oct. 2
 Ferrous diecasting today .. 84, April 24
 Frech DAW 10 hot chamber machine .. 59, Oct. 2
 Fries Sohn diecasting machines .. 53, Oct. 2
 Heatlock compact low pressure diecasting machine .. 20, April 17
 Heatlock compact 600 low-pressure diecasting machine .. 55, Oct. 2
 Herbert 400 DCA Mk. II cold chamber machine .. 51, Oct. 2
 IDRA OL-300S cold chamber machine .. 59, Oct. 2
 IDRA OL/Z-40 hot chamber machine .. 51, Oct. 2
 J.M.C. 125C cold chamber machine .. 43, Oct. 2
 M4B diecasting machine .. 55, Oct. 2
 Micro-happenings key to diecasting quality and productivity .. 75, Dec. 4
 Pressure diecasting of ferrous metals .. 56, July 10
 Schultz 21in. hot chamber diecasting machine .. 43, Oct. 2
 Triulzi 500 ton cold chamber diecasting machine .. 55, Oct. 2
 USI Vertacast vertical diecasting machine .. 49, Oct. 2
 Vertical diecaster has many advantages .. 46, Nov. 27
 Wotan-VWF DMKh 400 pressure diecasting machine .. 40, Oct. 2

Drawing Office Equipment

Model 70 portable copier .. 79, Feb. 21
 Normid planholder .. 64, Mar. 13
 Quickdraw with protractor head .. 61, Nov. 13

Drilling and Drilling Machines

Ajax AJ.60 heavy duty drilling and boring machines .. 44, Oct. 30
 Amplex diamond micro drills .. 20, Oct. 30
 Arbomatic 3212 NC drilling machine .. 20, Aug. 21
 Archdale Automatic NC drill .. 228, June 26
 Asquith-Archdale 2PT Powerthrust radial drill .. 233, June 26
 Asquith Verti-matic NC vertical driller .. 220, June 26
 Automatic detection of drill wear .. 49, June 5
 Bases shaft drilling jig .. 20, July 24
 Brasshouse IDM automatic PCD drill .. 20, Aug. 14
 Brookman improved Selfedrills drilling and tapping units .. 234, June 26
 BSA CD32T six turret co-ordinate driller .. 220, June 26
 Burgmaster 1-DA turret drill with automatic feed .. 20, Sept. 11
 Cincinnati 3-axis NC single spindle drill .. 218, June 26
 Co-ordinate drill/inspect table eases NC load .. 49, April 17
 Corona type 120 high speed drill .. 227, June 26
 Craven deep hole boring and trepanning machine .. 245, June 26
 Dex 70 multi drilling heads .. 236, June 26
 Dormer D x D trepanning cutters .. 241, June 26
 Dormer Goniometer 94 drill inspection unit .. 236, June 26
 Drill Service linear indexing automated drill .. 57, May 15
 Double the drilling speed with pulsating coolant .. 34, Oct. 2
 Drillex automatic twin spindle drilling machine .. 64, Nov. 20
 Garrett NC co-ordinate table .. 233, June 26
 Garrett TD 2515 NC driller .. 219, June 26
 'Home-made' machine drills tiny, extra-deep holes .. 41, April 10
 Kitchen & Walker T.C.2.X.Y. NC drilling machine .. 225, June 26
 Link lines for medium batch work .. 54, Oct. 9
 Meddings MF9 Mk II drilling and tapping machine .. 58, Nov. 6
 Meddings twin head NC drilling and tapping machine .. 20, Aug. 14

Multico deep throat bench drill .. 71, Feb. 28
 Multi-purpose drilling table .. 20, Oct. 30
 Newall 1520 NC drilling and milling machine .. 20, Dec. 11
 Packaged unit assists deep hole drilling .. 45, Oct. 16
 Pollard 2MY & 2NY sensitive radial drills .. 227, June 26
 Quallers & Smith QSR-PNC drill .. 20, Oct. 30
 Richmond NC 2in. capacity drilling machine .. 233, June 26
 Rotary index machine drills and reams small parts fast .. 42, Jan. 24
 Sandvik ejector drills .. 246, June 26
 Self-centring drill point works on inclined surfaces .. 7, May 29
 Sint automatic cycle multi-driller .. 65, Mar. 13
 Solving spade drill problems .. 33, June 12
 Stanley high speed deep hole drilling machine .. 246, June 26
 Startrite E.F.I. FG2 geared head drilling machines .. 228, June 26
 Startrite E.F.I. FGR radial drilling machine .. 225, June 26
 The use of chipbreakers in drilling .. 246, June 26
 Tiefbohr T20-500s deep hole borer .. 61, April 3
 Tilghman pulser coolant pump .. 60, Sept. 18
 Town 150 radial drilling and tapping machine .. 20, Sept. 4
 Unimatic NC co-ordinate tables type HL .. 225, June 26
 Vero 14/20 500 series with fluidic NC .. 53, Jan. 24
 Vero 20/40 NC turret machine .. 219, June 26
 Wadkin NC Mk 3 type TH drilling machine .. 219, June 26

Dust Control

Airflow portable fume-removal and ventilation unit .. 60, May 29
 Amerjet Model C dust collector .. 65, Feb. 7
 Dustaflex DX 150 dust extractor .. 67, Oct. 9

E**Editorial**

A case for enterprise .. 17, Mar. 27
 Advantage: mechanized assembly .. 13, Dec. 23
 A job for hunderds .. 13, May 15
 A knowledge bank for NC .. 13, May 22
 A new technique is developing .. 17, April 24
 A scheme to dull efficiency .. 13, Dec. 4
 Benchmarks for confidence .. 13, Aug. 14
 Business is working together .. 13, Dec. 11
 Career building on the shop floor .. 13, April 17
 Change point for employers? .. 13, Mar. 13
 Change your rate of change .. 13, April 3
 Counting the profit in NC .. 13, Aug. 7
 Cutting metal is only part of the job .. 13, July 17
 Direction right—range short .. 17, June 5
 Don't rock the boat .. 13, Oct. 9
 First things first .. 13, Nov. 27
 Fitting NC into link lines .. 13, Feb. 7
 Getting results from technology .. 13, Mar. 20
 Get to know the new machines .. 13, May 1
 Have your cheque books ready .. 17, July 3
 How do we use knowledge? .. 13, Jan. 17
 How to change—and grow .. 13, Oct. 30
 It's a Clearway for engineering .. 13, Jan. 24
 It's dangerous to think small .. 17, Jan. 31
 It's not size alone that dominates .. 17, June 26
 It's total setting time that counts .. 13, Sept. 11
 Let's use a pressure point .. 13, Mar. 6
 Look again at family groupings .. 13, July 24
 Low cost R & D for big firm ... and small .. 17, Jan. 3
 Machinability and machining data on tap .. 13, May 29
 Machine tool orders roll .. 13, Nov. 13
 Make sure of the dates .. 13, Feb. 28
 New attitudes to old ideas .. 13, June 12
 NC systems at decision point .. 13, Oct. 16
 Odd facts about grinding .. 17, May 8
 Of science, men and machines .. 17, Sept. 25
 Production engineer as salesman .. 13, April 10
 Prove your point .. 13, Jan. 10
 Save space—save headaches .. 13, July 10
 Smooth or rough tactics for October? .. 13, Sept. 18
 Special machine supply transforms .. 13, Sept. 4
 The course, and cost, of change .. 13, Aug. 28
 The extra you keep in reserve .. 13, Feb. 21
 To make the most of your time .. 17, June 19
 What industry needs in graduates .. 13, Oct. 2
 When the market dictates .. 13, Aug. 21
 Why did it happen? .. 13, Feb. 14

Education

Give engineers wider education .. 17, Oct. 9
 Machine tool technicians learn electronics .. 51, June 5
 Persuading them back to science .. 15, Mar. 6
 They're queuing for IC's new MSc course .. 23, April 24
 Two more MTTA higher scholarships .. 17, Aug. 14

Electrical Equipment

Graviner 12000 series single level motor overhead unit .. 53, June 12
 Heinemann Roto-Netic stepping motors .. 51, Dec. 18
 Herbert-BSA turret head limit switch .. 55, April 10
 Hirst Mk IV Resistance welding current meter .. 57, Jan. 3
 Infra-red scanning test circuits .. 7, July 24
 Leroy braking motor for machine tools .. 59, Sept. 18
 Machine tool technicians learn electronics .. 51, June 5

Organic semiconductors—engineering

materials of the future? .. 7, July 24
 The SCR and how it works .. 51, Dec. 11
 Trend SFU52 .. 63, Sept. 4

Electro-chemical Machining

Abwood-Contelyst SG4HE electrolytic grinder .. 83, July 3
 Adaptive control on EDM .. 69, Dec. 4
 Anocut electro-chemical machine .. 88, July 3
 Chemical milling progress .. 44, June 5
 Cincinnati to build ECM machines in UK .. 21, July 3
 Cincinnati 12-I-MT Electrochem machine .. 87, July 3
 ECM deburring breaks production bottleneck .. 41, Oct. 23
 Electro-chemical machining rates studied .. 7, Jan. 24
 H.P.E. model DBI twin station electro-chemical deburring machine .. 87, July 3
 Interior of a 2ft. dia. pipe-bend being electro-chemically machined at PERA (Caption) .. 7, July 10
 Mitsubishi Electric demonstrated an ECM machine at the Fourth Japanese Machine Tool show .. 69, Dec. 4
 Sparatron Contelyst PH2-500 electrolytic tool and cutter grinder .. 88, July 3
 Theory reveals secrets of electro-chemistry .. 7, July 24
 Update on electro-chemical honing .. 7, Nov. 27

Electro Deposition

Helicopter blade edges are electro-formed .. 7, Aug. 28

Electro-Erosion

Acu-Ram electro-eroder .. 20, Jan. 24
 Acu-Ram 1502 electro-eroder .. 84, July 3
 Adaptive control on EDM .. 65, Dec. 4
 Agemaspark HYP 500 electro-eroder .. 85, July 3
 Agie-Rotoform spark erosion surface grinder .. 83, July 3
 Better electro-mechanical servo for erosion .. 45, Aug. 28
 Converting a grinder to EDM .. 57, Nov. 20
 Electro-erosion goes adaptive .. 24, June 26
 Elox PD 451 spark erosion machine .. 83, July 3
 GKN C-pulse spark machine .. 86, July 3
 Graphite erosion electrodes can be moulded .. 58, May 1
 'Home-made' machine drills tiny, extra-deep holes .. 41, April 10
 Languepin Seleromat BI NuJA spark eroder .. 85, July 3
 Multi-channel electro-erosion .. 41, Aug. 21
 finishes cavities faster .. 41, Aug. 21
 Newall-Agie 1520-75K jig erosion machine .. 84, July 3
 Sparatron SM17 electro-erosion machine & SPF30 generator .. 86, July 3
 Sparatron SM36 electro-erosion machine .. 84, July 3
 Sparmac 108 electro-erosion machine .. 63, Sept. 4
 Up to date with electro-erosion .. 16, Dec. 18
 Waldrich Siegen-Ingersoll 200B spark eroder .. 87, July 3

Employers' Associations

CBI plans its future .. 17, May 22
 'Dispute' procedures should be revised .. 16, Mar. 20

Employment

A few more jobs in the autumn .. 17, July 24
 Engineering unemployment not down yet .. 19, Mar. 6
 Engineering unemployment turns the corner .. 16, April 3
 Maybe you'll get that gold watch sooner .. 19, April 10
 Mrs. C. looks for productivity deal overseas .. 15, May 15
 Optimism for increased employment levels .. 24, May 8
 Would you like to retire at 55? .. 17, Mar. 13

Ending and Centring

West Germans form consortium for end finishing machines .. 20, Mar. 13

Engineering Business

Big mergers—IRC "would do it again" .. 17, May 22
 Engineering export orders drop by 12% .. 19, Jan. 10
 Engineering exports on the way up .. 23, July 3
 Engineering imports climb .. 17, Dec. 11
 Engineering orders still flagging .. 19, Mar. 13
 Engineering output may lift 6% next year .. 20, Nov. 20
 Engineering trade still disappoints .. 19, Sept. 11
 Engineers full of confidence .. 21, June 26
 Little change in engineering orders .. 20, May 1
 Nedly sees big production rise .. 16, Aug. 7
 Want to grow? World must be your market .. 17, Aug. 7

Exhibitions

Classified guide to Olympia .. 62, May 1
 Diecasting Show pinpoints key developments .. 17, Oct. 2
 Fighting for smaller Italian machine tool market .. 19, Oct. 23

Machine tool show will highlight new designs	17, Feb. 28
New Czech machines exhibited recently at the Brno Fair	29, Oct. 30
North British Engineering Exhibition	67, Mar. 6
Olympia Show News	5, 7 June 19
Olympia Show News	5, 7 June 26
Olympia Show News	5, 7 July 3
Olympia Show News—IMTE boosts industry morale	5, July 10
3rd International Diecasting Exhibition when salesman meets engineer	15, July 17
	40, Oct. 2
	57, May 1

Exports

BAC get Libyan missile order	23, May 8
Canadian tariff change aids UK exporters	16, Feb. 21
Car export production highest ever	20, May 1
Confidence grows in export prospects Co-operative exports work	15, July 10
Elliott hit exports with new machine tools line	17, Sept. 4
Engineering exporters have sober confidence	17, April 3
Engineering exports climbing	19, April 24
Engineering exports level off	16, April 17
Engineering exports on the way up	24, May 8
Engineering firms need big export boost	23, July 3
Engineers expect 13% on exports	23, Jan. 31
European growth will make room for UK exports	16, Mar. 13
Export optimism soars, investment follows slowly	19, Feb. 7
Export orders begin to look up	19, Feb. 28
Exports keep up car production	21, June 5
Exports will grow faster—little Neddy	24, June 5
Get your product into Europe for £850	16, Feb. 21
Growth prospects for industrial nations	19, Dec. 18
'Help small firms setup in exports' call by mechanical engineering EDC	19, Feb. 14
Record level of engineering exports	17, Nov. 13
Rolls-Royce hits the jackpot	19, Mar. 13
The RB 211 contract and Rolls-Royce's suppliers	17, April 3
Toolmakers expect Mexican business	19, July 17
Want to grow? World must be your market	21, May 8
	17, Aug. 7

Extrusion

Resin dams vibration	7, Oct. 16
Steel extrusions save money	7, Nov. 6

F

Fasteners

New rivet gives corrosion protection as well	7, Mar. 27
Nylon strip locks any threaded part	7, Jan. 24

Filtration

J & B portable filtration unit	71, Jan. 10
--------------------------------------	-------------

Finishing

Almo media dispenser	20, Feb. 7
Better blast cleaners on the way?	7, Jan. 24
Better surface finish for HSS plate	7, Nov. 20
Coining made easier—by special deburring process	51, Oct. 23
Elu sander for shaped surfaces	36, July 24
Morris tube cleaning brushes	91, April 24
New product cleans coated abrasives	7, Sept. 4
Putting pressure on abrasive	52, Nov. 6
Roto-Finish Osromidjet 1.5	71, Jan. 10
Saba sand-blasting gun	60, Sept. 18
The long and short of vibratory deburring	38, Nov. 27
Through-feed vibratory finisher operates continuously	86, April 24
Vanco CS 30 barrel finisher	20, Oct. 16

Flame Cutting

New ways of flame cutting steel	50, Mar. 20
---------------------------------------	-------------

Fluidics

Kay high speed fluidics interface	61, April 3
Norgren fluid logic touch sensors	93, April 24
Waircom 20mm. fluidic proximity sensor	67, Oct. 9
Warren Digi-Scale fluidic readout	20, Sept. 18

Forging and Forming

(see also 'Cold Forming')

Aluminium alloys forged to closer tolerances	43, June 12
Automated forging press with automatic tool changing	51, Mar. 20
Bigwood profile forming line	65, Nov. 20
British bar heater for Japan	17, Dec. 11
Cold drawing process produces complex tubular parts	7, Oct. 9
Extra-versatile HERF press	43, May 15
Fluid forming press is direct-pumped at 16,500psi	48, Sept. 25
Fluid forming takes on quantity jobs	41, Aug. 28
Forging metal while plastic	7, May 1
Garringtons forging plant (Caption)	21, June 26
HERF increases strength of metals	7, Jan. 3
JRLE ring forming machine	20, May 22
Liquid bulge forming	73, April 24
Massey Hydrotamp Mk II	57, Mar. 20

Readouts speed setup of coiler	44, Aug. 14
Reducing machining distortion in aluminium forgings	51, Feb. 21
Somers form rolling machines	58, Aug. 28
12 million forgings a year from one machine	77, July 3
Use grid test for formability	51, Aug. 21
Usine de Wecker twin-hammer forging machine	74, July 10
What's new in metalforming?	7, Dec. 4

France

French machine tools after the 'events'	19, Aug. 14
---	-------------

Fuel

(see under 'Workholding Devices')

Gas Council plans to double industrial sales this year	19, Jan. 24
Natural gas converts the Black Country	33, Dec. 18

Furnaces

Barlow-Whitney miniature electric batch furnaces	69, Jan. 31
British bar heater for Japan	17, Dec. 11
Oxygen melts aluminium 50% faster than usual	7, Sept. 18

G

Gauges and Gauging

Temco template former gauge	56, July 24
-----------------------------------	-------------

Gear Inspection

Demm PRI 320 gear sound tester and deburrer	173, June 26
Faster gear testing brings production savings	82, April 24
Gleason 513 hypoid gear tester	174, June 26
Measuring gear transmission error	54, May 29

Gears and Gearcutting

Best ways to finish gears	60, July 10
Churchill universal gear hobbing machines PH1612 and PH36	174, June 26
Drummond type 14 Maxicut hydraulic gear shaper	176, June 26
Finish rolling points the way to gear cutting revolution	46, Nov. 20
Holdine grain size in forged gears	7, Nov. 20
Hurth ZSK gear shaving machine	176, June 26
Hydrax HD 85 high production gear hobber	177, June 26
IML range of gear cutting machines	171, June 26
Lambert gear hobber	71, May 22
Landis 32 TFRG gear finisher	51, April 10
Lorenz LF 315 gear hobbing machine	177, June 26
Marburr gear deburring tool	61, Aug. 28
Matrix GS 10 precision spline shaft grinder	173, June 26
Matrix G 10 spur and helical gear grinder	174, June 26
Mikron A21/1 automatic gear hobber	171, June 26
Pfauter RA 100 hobber	178, June 26
Sunderland IM 60 gear planer	177, June 26

Gear Testing

Demm testing and deburring machines	24, Jan. 31
---	-------------

Germany

Europe's machine tool firms optimistic No price cuts for German machine tools from new tax system	19, July 3
	17, Jan. 10

Grinding

Centreless grinding with big diamond wheel	7, July 17
Ceramic-magnet grinder ups productivity	42, Aug. 7
Coolant supply for high-speed grinding	34, Dec. 18
Custom-built machine solves grinding problem	54, Feb. 28
Density check controls grinding wheel quality	39, Jan. 17
Developments in grinding machines	146, June 26
Diamond grinding wheel has high-accuracy form	41, Mar. 27
Foam wheels grind difficult contours	7, April 17
Grinders go to digital readout	48, July 24
Grind IDs and ODs simultaneously	53, Oct. 23
High-accuracy form dressing featured on two new grinders	54, April 3
High-production grinding to millinths	29, Oct. 2
High-speed grinding hits Britain	47, April 3
How to do internal grinding	61, Feb. 7
Improved grinding wheel for steel industry	7, Dec. 18
Multi-bore grinding under punched-card control	31, June 12
New diamond grit grinds soft metals	43, Feb. 14
Proximity switches control Vauxhall's five-man crankshaft line	41, May 29
Regrinding mill rolls on fully automatic cycle	52, Aug. 28
Sonic tests for grinding wheels	7, Oct. 2
Taking the skill out of grinding	47, Sept. 18
Two-headed plunge grinder ups valve output	63, Feb. 21
Wet cutter grinding with a diamond wheel	51, Jan. 10
What is gained by high-speed grinding?	51, Nov. 20
Wheels the key to high-speed grinding	48, May 8

Grinding Machines and Attachments

Astra AR-6B carbide tool grinder and lapper	102, July 3
Automatic saw blade sharpener	85, Dec. 4
Auto tool grinding machine	20, Nov. 27
Bendix Micro-Tol precision chucking grinder	56, Nov. 6
Berthiez VGM 125/140 vertical grinder	154, June 26
Blakesley chamfer grinding machine	49, Aug. 14
Blanchard 20K36 rotary-table surface grinder	154, June 26
Brierley radial relief attachment	64, Aug. 7
Brown & Sharpe 1048 Microstatic cylindrical grinder	153, June 26
Brown & Sharpe 618 visual surface grinder	158, June 26
Cardiaform carbide form grinding equipment	63, May 29
Cardiaform carbide form grinding equipment	157, June 26
Christen KFS chamfer milling machine	89, July 10
Churchill auto cylindrical chucking grinder with gantry loader	20, May 22
Churchill BRC ball race grinder	156, June 26
Churchill 4EC centreless grinder	163, June 26
Churchill HBX plain internal grinder	151, June 26
Clarkson Mk. II tool and cutter grinder	65, April 17
Consolidated CP 3141 grinder	69, Feb. 21
Dormer Formatic Polar 135	96, July 3
Dormer 99 subland and step-drill grinder	96, July 3
Dormer 130 carbide tip grinding machine	59, Jan. 17
Dormer 130 carbide tip grinder	101, July 3
Dumore Centra-Point cutter grinder	96, July 3
ELU automatic sharpening machine	64, Mar. 13
Estarta 301 centreless grinder	20, Jan. 10
Flexiform vertical spindle profiling, routing and finishing machine	50, Nov. 27
Forn wheels grind difficult contours	7, April 17
Grinding wheelhead selection and care	54, Nov. 6
Hauser 4SM-DR jig grinder with DRO	156, June 26
Heald 271B internal grinder	159, June 26
Heald 273A universal internal grinder with DRO	152, June 26
Herminghaus SR3 high-speed centreless grinder	154, June 26
Holroyd profile and cutter grinder	102, July 3
Hurth SRS 400 shaving-cutter grinder	98, July 3
Johansson IU-D cylindrical grinder	164, June 26
Jung A3 automatic internal grinder	101, July 3
Jung C8 internal grinding machine	159, June 26
Kapp AS203 precision hob grinder	98, July 3
Kenny combined radius and angle diamond dresser	65, Sept. 4
Kuhlmann spiral and ball end grinding attachment	24, Mar. 27
Landis Lund IR plain grinder	151, June 26
Landis Lund IWR multi-wheel plunge grinder	170, June 26
Landis Lund 3R plain grinder	164, June 26
Le Clair type 6 Dinkum wet lap	53, May 8
Lorant centreless grinding fixture	63, April 3
Low-speed carbide grinder needs no coolant	7, Feb. 7
Lumsden 90 ML surface grinder	170, June 26
Matrix 69 automatic internal thread grinder	161, June 26
Matrix 66-Mark II internal thread grinding machine	61, Dec. 11
Mattison 84 vertical, rotary surface grinder	159, June 26
Morrisflex miniquills	53, June 5
MSO-Cincinnati R50 cylindrical grinders	52, Feb. 14
MSO-Cincinnati R75 universal cylindrical grinder	152, June 26
Newall A/HAC crankpin grinder	160, June 26
Newall LA & L6 cylindrical grinder	170, June 26
Newall twin-wheelhead grinder	169, June 26
New slab grinder improves yield	46, June 5
Norton CTU chucking grinder	161, June 26
NC conversion gives new role to old planer	52, May 29
NC jig grinder for die-making	49, Aug. 27
Okuma universal grinding machine	50, Nov. 27
P.A.C.E. automatic centreless grinder in-feed	54, May 8
PeTeWe PFS4u projection form grinder	96, July 3
Reinecker IPASA-10 internal grinder	163, June 26
R.W.L. drill point grinder	63, Aug. 7
S & B Aldridge contour grinding machine	71, Feb. 7
Schaut B800S500 cylindrical grinder	160, June 26
Schmid HSR surface grinder	169, June 26
Snow HR 400 rotary table surface grinder	20, Sept. 11
Snow OS96/18 horizontal slideway grinder	164, June 26
Snow V100/30 vertical surface grinder	155, June 26
Spandau-Lindner SUD17 duplex internal and face grinder	156, June 26
Spandau-Lindner SJS3 punched-card internal grinder	151, June 26
Speedfam 32 BTAW free abrasive machine	155, June 26
Studer RHU 500 universal cylindrical grinder	157, June 26
Thompson-Matrix B8 Dial-A-Matic surface grinder	152, June 26

Users comment on the J & S 1070 cylindrical grinder ..	41, Dec. 18
UVA type U55M internal grinder ..	158, June 26
UVA U551 CIH bearing grinder ..	161, June 26
Ward controlled spiral grinder ..	20, Nov. 13
Weatherley-Cincinnati broach sharpener ..	101, July 3
Wickman optical profile grinder ..	160, June 26
Wickman Scrivener 345 internal grinder ..	153, June 26
Wright grinding heads and spindles ..	59, May 15
Guillotines and Shears	
Assists guillotine cutting accuracy ..	62, Nov. 13
Elga high performance mechanical shears ..	53, May 8
Elga 26ft. Hydrashear ..	61, Sept. 4
Faster shearing at lower cost ..	46, Oct. 16
Jorg high speed guillotines ..	65, April 17
Massey BRG 3000 A variable-rake hydraulic shear ..	67, July 10
Redman flying die cutoff press ..	49, Dec. 18
Shear bought off the drawing board ..	54, Nov. 13
SPS Micro work support equipment ..	63, July 17

H

Hard Facing	
How to extend your press tool life ..	57, Sept. 11
Explosive technique gives better hard facing ..	7, Dec. 11
Heat Transfer Fluid	
New heat transfer fluid from BP ..	7, Oct. 2
Heat Treatment	
Automatic induction hardening for the big jobs ..	7, Aug. 7
Hardening thin-walled vessels ..	7, July 10
Heat treating is repeatable ..	31, Oct. 30
Improved cooling system cuts annealing time by one-third ..	63, Oct. 9
Induction heating equipment built ..	63, Sept. 11
(caption) ..	7, June 5
Induction heating for the big jobs ..	87, Dec. 4
Intertherm tie rod hardening machine ..	7, Feb. 7
New quenching process for light gauge metals ..	20, Nov. 27
SAS 30ft. vertical heat treatment furnace ..	57, Jan. 17
Supa-Nova II needle flame blow torch ..	7, Mar. 6
Versatile furnace gives various heat treatments ..	7, Aug. 28
Water improves quenching power of salt bath ..	41, Nov. 6
Water improves salt quench ..	41, Nov. 6
Honing and Honing Machines	
Honing fluid boosts stock removal ..	7, Feb. 28
Jones-Shipman model 768 honing machine ..	20, Oct. 23
Match honing beats selective assembly ..	39, May 29
Two by two hones speed cylinder block production ..	48, April 3
Update on electro-chemical honing ..	7, Nov. 27
Hungary	
Hungary wants UK engineering links ..	23, Mar. 27
Hydraulics	
Pratt 1in. directional valve ..	65, Feb. 7
Winn compact Tricon linear actuator ..	93, April 24

I

Imports	
Steel imports up—and going still further ..	24, June 5
Incentives	
Development areas get training grants scheme ..	19, Jan. 3
Incentives boost Italian investment ..	16, Aug. 28
Put your foreman in business! ..	55, Sept. 4
Regional policy begins to bite ..	15, Feb. 21
Indexing Devices	
Elliott-Centec 8in. indexing table ..	20, Nov. 27
Yasda air lift indexing table ..	62, Nov. 13
Industrial Relations	
—and the car industry could pull out ..	19, Mar. 27
Armistice at Gilling ..	16, Dec. 18
Beating automation's human problems ..	17, May 22
Blue and white collar pay plans—differences are disappearing ..	16, Nov. 13
Conservatives propose legislation for unions ..	16, April 17
Coping with redundancy ..	23, June 26
Donovan report "masterly diagnosis" ..	20, June 26
—Cattell ..	15, June 12
Don't set the alarm—you've retired ..	57, April 3
Engineers may change pay bargaining rules ..	19, Mar. 27
Hazards of being a leader ..	19, Dec. 11
How to beat the overtime bogey ..	21, Mar. 27
Industrial democracy tempts the TUC ..	15, Aug. 21
Industrial relations are YOUR problem ..	19, June 19
Joint council for car industry ..	17, Oct. 16
Labour disputes threaten steel output plans ..	23, April 24

Let the foreman manage his men ..	57, Nov. 13
Mrs. C. bending to a harder line ..	15, Dec. 11
Mrs. C. looks for productivity deal overseers ..	15, May 15
No shining plan on joint motor council ..	17, Nov. 13
One union for car industry? ..	15, Oct. 2
Put your foreman in business! ..	55, Sept. 4
Steel output threatened by clerks ..	23, June 26
TUC, CBI stake claims on Donovan ..	17, Nov. 6
Unions squabble over steel clerks ..	16, June 12
White collar union has reservations about Donovan ..	19, Aug. 21
Why did they strike?—CBI-TUC study ..	17, May 29

Information Service

Your guide to production know-how ..	43, Aug. 7
--------------------------------------	------------

Inspection and Measurement

Allen Catoptric magnifier AL6 ..	61, Nov. 13
Allen M300 hand magnifier set ..	20, Jan. 24
BAC roundness measuring table ..	60, July 24
Bealieu long anode, self-contained radiographic equipment ..	57, Jan. 17
Baltographe RE 320 radiography equipment ..	61, Sept. 4
Brush-on liquid reveals material defects ..	46, Feb. 14
Calibration labs expect international payoff ..	21, Jan. 31
Co-check inspection machine ..	184, June 19
DEA Beta-3D measuring and marking machine ..	190, June 19
Dormer Goniometer 94 drill inspection unit ..	236, June 26
Dormer model 132 rotary inspection fixture ..	129, June 19
Elcometer 106 adhesion tester ..	55, June 12
Elcometer Chemimage ..	55, April 10
Elcometer roughness gauge ..	61, Oct. 23
EST-Churchill air-spindle gauge ..	187, June 19
Fast test measures corrosion of metals ..	7, June 12
Ferranti 5" inspection machine ..	189, June 19
First step towards automated rod mill ..	7, July 10
Freco Kwick-Scribe height gauge ..	63, Aug. 7
GKN portable hardness tester ..	59, Aug. 7
Infra-red scanning tests circuits ..	7, July 24
Inspection machine checks slots in rotor discs ..	50, July 24
Kearns-Richards 3-axis inspection machine ..	183, June 19
Laser system measures odd shapes ..	7, May 8
Leitz automatic camshaft tester ..	186, June 19
Leitz digital precision master dividing head ..	190, June 19
Leitz 200 universal digital comparator ..	190, June 19
Measuring system based on laser energy ..	7, Mar. 6
Mecrin Mk. II roughness indicator ..	191, June 19
Mercer air/electronic transducer ..	187, June 19
Microselect digital and 225 dial reading micrometers ..	59, July 17
Microwaves detect surface cracks to 100 micro-in. ..	7, June 12
Min X-ray checks hard-to-reach locations ..	7, Oct. 23
N.R.D.C. crack detector ..	61, Mar. 27
Olivetti Inspector 26-16 3-axis machine ..	184, June 19
OMT optical rotary table ..	186, June 19
Portable measuring microscope ..	66, Feb. 28
Precision bore-gauging system needs no setting rings ..	40, June 5
Reflectivity testing in the workshop ..	7, Aug. 14
Riteflex digital readout vernier calipers ..	47, Aug. 14
Salford ferrous composition indicator ..	20, April 3
Self-guided ultrasonic probe scans contours ..	45, Jan. 17
Shop floor Talyronds cut scrap ..	43, Mar. 27
SIP MUP-200 universal measuring machine ..	183, June 19
SIP Trioptic universal measuring machine ..	189, June 19
Sonnen automotive bore gauge ..	191, June 19
Supermarket for single metal crystals ..	7, Jan. 17
Teledetector automatic ferrous segregator ..	62, Nov. 20
3D scanning tapes non-geometric shapes ..	50, Jan. 3
Two-axis measuring machine eases inspection bottleneck ..	52, April 10
Ultrasonics measure residual stress ..	7, Mar. 20
Verdict dual-reading Metrinch indicator ..	193, June 19

Investment Incentives

Incentives boost Italian investment ..	16, Aug. 28
Investment grant payments backlog to stay ..	15, Jan. 24
No Easter egg from Board of Trade ..	21, April 24
Preproduction orders top £2m. ..	17, Feb. 21
Public money looking for a taker ..	16, Jan. 24
SIMA welcomes instrumentation plan ..	17, Feb. 14
Three firms get Minterch aid ..	23, June 5
US metalworking firms shift overseas investment ..	17, Aug. 21

Italy

Incentives boost Italian investment ..	16, Aug. 28
Italian boom may slacken ..	20, July 3
Second Soviet Plant contract ..	16, Oct. 9

J

Japan

Adaptive control on EDM ..	69, Dec. 4
Butt-welded body-side blanks cut costs ..	53, Feb. 21
Duplex-station transfer line for fly-wheels ..	55, Feb. 7
Honda cuts brake drum costs ..	40, Feb. 14
Japanese car industry uses .. shell moulding in a big way ..	60, Mar. 6
Japanese machine tool attack on Europe ..	16, May 1
Japan's growing assembly machine market ..	50, Oct. 23
Japan's motor miracle ..	43, Jan. 24
NC stars at Japanese show ..	67, Dec. 4
Spotlights on Japanese car production ..	63, Mar. 13
Toyota's nine-man crankshaft line ..	60, Feb. 28

Jigs and Fixtures

Highbury rotary welding positioner ..	53, Feb. 14
NCS fixture units for NC machines ..	64, Nov. 20
S & B auto indexing flute mill fixture ..	20, Aug. 7

Job Evaluation

Engineers slow on job evaluation ..	15, Dec. 18
Foundries get help in defining jobs ..	16, Oct. 2
Get started now on job evaluation ..	15, Oct. 2

L

Labour

Don't set the alarm—you've retired ..	57, April 3
Heading for a labour shortage already? ..	15, Nov. 6
Maybe you'll get that gold watch sooner ..	19, April 10
The great white-collar invasion ..	17, Jan. 17
Watch costs of office staff ..	16, Nov. 27

Labour Relations

Objectives lost in Roberts-Arundel dispute ..	16, Feb. 21
---	-------------

Lapping

Atchley 8in. metallurgical grinding & polishing machine ..	51, Sept. 25
Flexibox lapping machine ..	50, Dec. 18
Hauerwas PLM 30-300 production angle lapper ..	46, Aug. 14
Lapmaster 24in. lapping machine ..	169, June 26
Precisionlap 48in. lapping machine ..	56, Oct. 23
Precisionlap model 12 lapper ..	55, June 12

Lasers

Gas jet laser makes cuts up to 0.02in. wide ..	7, Oct. 16
Laser cuts holes in metal to 2.5 microns dia. ..	7, May 29
Measuring system based on laser energy ..	7, Mar. 6
New laser material ..	7, July 10

Lathes and Lathework

Armstrong tool wear compensator ..	20, May 29
Automatic compound slide unit converts lathe for second operation work ..	58, Oct. 16
B & S thread chasing attachment ..	46, Aug. 14
Binns & Berry TB 707 centre lathe ..	58, Mar. 20
BSA Batchmatic 50 ..	194, June 26
BSA put low cost into 'economic' batch sizes ..	20, May 15
Camless autos make short orders pay ..	29, Dec. 18
Carbide cutoff tools on bar autos ..	39, Nov. 27
CER 200 NC turret lathe ..	190, June 26
Churchill Red Century 450NC ..	193, June 26
Churchill-Redman 350 NC lathe ..	189, June 26
Churchill-Redman P5 tracer lathe ..	104, July 3
Colchester Triumph 2000 centre lathe ..	20, April 10
Conversion kit boosts capstan output by 40% ..	49, Mar. 20
Craven-Swift medium capacity NC swing lathe ..	251, June 26
Csepel CER 200 NC turret lathe ..	24, Jan. 3
Cumbrematic 20 automatic profile lathe ..	63, Dec. 11
D. & C. Cubar Auto-Trace lathe ..	20, Oct. 9
Dean Smith & Grace 30 TC lathe ..	182, June 26
Deskilling the centre lathe ..	53, July 10
Drummond 12 Maxi-cut turn and bore lathe ..	104, July 3
DSG 2112SB turret lathe ..	106, July 3
DSG 1910T toolroom lathe ..	103, July 3
Elliott Concord 460MKII lathes ..	20, Dec. 18
Emcomat 7 universal machine tool ..	24, Jan. 31
Fast changeover—an aspect of NC ..	45, Sept. 4
George Fischer KDM 9/80 copy turning lathe ..	108, July 3
George Fischer KDM 19 copy turning machine ..	113, July 3
George Fischer KDM-2-7/80 two-spindle copy lathe ..	104, July 3
Gildemeister RN 40/250 NC lathe ..	191, June 26
Harrison 13in. and 15in. swing lathes ..	103, July 3
Heid DA-NCC 630 NC production lathe ..	101, July 10
Heid DF-RA200 chucking lathe ..	112, July 3
Heid DFR2-NCC 1000 heavy-duty NC turret lathe ..	251, June 26
Heinemann DN300 NC lathe for chuck and bar work ..	89, July 10

Hepworth copying equipment for Colchester Triumph 2000 ..	65, Oct. 9	Imported machine tools—you'll have to pay on the nail ..	15, Dec. 4	Maintenance	
Herbert NC Programautos ..	196, June 26	Italian boom may slacken ..	20, July 3	Dorvic machinery skates ..	20, Aug. 21
Herbert turning centre ..	190, June 26	Japanese machine tool attack on Europe ..	16, May 1	Maintenance men more prone to accidents ..	23, Sept. 25
Holbrook Magna centre lathe with Digiturn ..	112, July 3	Machine tool business slow ..	19, Aug. 21	Management	
HPE NC lathe ..	248, June 26	Machine tool business still hesitating ..	19, April 17	A management guide to industrial espionage ..	48, June 12
Heyligenstaedt FB Heynumat NC chucker ..	191, June 26	1. Machine tool buying after the Budget ..	15, Mar. 20	Beating automation's human problems ..	17, May 22
Indexable 'chuck' turns many faces automatically ..	31, Aug. 14	Machine tool firms quiz their import competition ..	17, Mar. 6	Bigger—but not always better ..	55, Sept. 18
J & L 312 NCTL turret lathe ..	248, June 26	Machine tool men plan the next two years ..	15, Oct. 9	CAV sets new efficiency standards ..	49, May 29
J & R cross slide mounted turret attachment ..	65, Sept. 11	Machine tools recover slightly ..	17, Sept. 18	Effective value analysis needs strong management ..	49, April 10
Koping S10 NC-K lathe ..	251, June 26	Mr. J. Hodgkinson (caption) ..	23, July 3	5 points to check .. Before you employ a consultant ..	45, Feb. 14
Lorch BVII-K/R turret lathe ..	115, July 3	Mintech to prod NC system makers? ..	15, Oct. 16	Government cuts—just a trim for engineering ..	15, Jan. 24
Making the jet engines of the future ..	57, May 22	MTTA looks to customer relations ..	15, Nov. 27	Industrial democracy tempts the TUC ..	15, Aug. 21
Max Muller MDW10 automatic tool-changing lathe ..	193, June 26	NC business is booming ..	15, Nov. 13	IRC offers stark choice to management ..	16, May 29
Now it's the NC turning centre ..	47, May 22	Precision machines keep Swiss makers happy ..	17, July 10	Is your pay plan out of control? ..	15, May 22
NC lathes reach for wider appeal ..	179, June 26	Rationalization: Sweden-Ja, Spain-No ..	20, July 17	Management duped by pyramid image ..	58, Feb. 7
Optikon DCN chucking lathe ..	196, June 26	Record year but doubts for the future ..	17, Feb. 21	Manchester gets cheap consultancy ..	19, Jan. 24
Optical attachment cuts lathe downtime ..	37, Nov. 27	Stokes gives push to investment ..	15, Aug. 14	Production's role in the airbus triumph ..	15, April 10
Pittler Pinumat "A" NC chucking auto ..	192, June 26	Stockpiling scheme collects no customers ..	16, May 1	Small firm consultancy plan on the way ..	17, May 29
Polymat polygon turning attachment ..	67, Oct. 9	Swedish state machine tool company ..	16, Oct. 9	Subsidized consultancy for small firms under way ..	23, June 19
Preset tooling is interchangeable on new Herbert lathe ..	60, May 1	US firms steady on machinery buying ..	61, May 8	The RB 211 contract and Rolls-Royce's suppliers ..	19, July 17
Quick-change makes smaller batches economic on autos ..	35, Aug. 14	Waiting for the investment upturn ..	24, June 19	Yanks get double our output per man ..	23, Mar. 27
Stanley HS 10 centre lathe ..	104, July 3	What the shake-up means for machine tools ..	17, Nov. 27	Manpower	
Startrite EFI high-speed lathe ..	106, July 3	Machine Tool Capability		3. Check on your office overheads ..	17, Mar. 20
STAT preset tooling system ..	105, July 3	Know your machine and control your product quality ..	37, Aug. 21	Employment gap unchanged ..	17, Feb. 7
Tadu F650 facing lathe ..	106, July 3	Rolls-Royce to rate machine tool capability ..	57, Jan. 10	Expansion of electronics industry will create more jobs for engineers ..	21, Jan. 3
Tarex simplifies tool presetting ..	40, Oct. 30	Machine Tool Design		How to beat the technology gap ..	19, Mar. 20
Turning machines for the 1970s ..	17, May 1	Awards to machine tool design scholars ..	19, Feb. 21	Wedgehead Benn ..	19, Mar. 20
Turn-O-Matic II precision chucking and boring machine ..	65, Mar. 13	Graham Brown and the Churchill HB600 ..	37, Sept. 25	Increase redundancy contribution says MoL ..	17, Feb. 7
VDF DP250 NC front turning machine ..	191, June 26	Harry Mawer and the DSG lathe ..	43, Oct. 23	Yanks get double our output per man ..	23, Mar. 27
VDF V630 NC lathe ..	192, June 26	How Dixi keeps machine errors small ..	48, July 17	Marking	
What form for form tools? ..	49, Feb. 28	Joe Houldsworth and the J & S 1070 cylindrical grinder ..	62, Dec. 4	Funditor fully automatic metal label embossing machine ..	60, Nov. 13
Wickman Lang 50CD lathe ..	111, July 3	N.S.K. recirculating ball screws ..	59, Aug. 7	Funditor Mark-matic marking machine ..	63, July 17
Wickman Lang Numericon NC lathe ..	194, June 26	On-line plotting of computer data aids machine tool design ..	54, Jan. 10	Keeping track of steel products ..	7, Jan. 31
Letters to the Editor		Production Engineers probe UK machine tools ..	19, June 5	Metal marking system ..	7, Oct. 2
A rampus in NC programming ..	20, Feb. 28	R & D ideas for machine tools ..	19, Sept. 25	New hot stamping machine from Milford-Astor ..	51, Dec. 18
Before you employ a consultant ..	16, Mar. 13	Subduing machine tool vibrations ..	52, Feb. 28	Pryor EP53 small drill marker ..	65, Feb. 7
British die castings ..	16, Nov. 13	The ball bearing isn't dead ..	47, Oct. 9	Marking Out	
Circular form tool design ..	16, Nov. 13	Thinking ahead on machine tool requirements ..	144, June 26	Centa-Kwik hole centring machine ..	56, July 24
Internal grooving ..	19, Jan. 24	What does machine tool accuracy mean? ..	44, Nov. 13	Freco Kwick-Scribe height gauge ..	63, Aug. 7
Investment grant cut pressuring management ..	19, Aug. 28	Machine Tool Industries		Stick on templates eliminate marking-out ..	7, Sept. 11
Mintech to prod NC system makers ..	19, Nov. 6	Machine tool manufacturers put their heads in the clouds ..	16, Jan. 10	Materials	
Quick-change for turning ..	17, Aug. 28	Netherlands' position unchanged ..	19, Aug. 28	Aluminium products to cost more ..	20, June 12
Readouts, Readouts, Readouts ..	20, Feb. 28	No price cuts for German machine tools from new tax system ..	17, Jan. 10	Composite material has high creep strength ..	7, Sept. 11
Subcontract tomorrow's machining problems ..	16, April 17	Wickman move into new products ..	17, May 15	Copper price system changed ..	20, June 12
The ball-bearing isn't dead ..	17, Oct. 23	Machine Tool Research		Improved grey iron for loco. brake blocks ..	7, Aug. 14
Transfer lines for turning ..	16, Oct. 2	MTIRA puts accent on application ..	19, May 29	Reinforcement fibres at half a crown a pound ..	24, June 19
Where can I buy metric hardware? ..	19, Sept. 4	Machine Tool Study		The UK materials industry ..	15, Dec. 4
Will Accurat force casting reappraisal? ..	16, Mar. 13	Machine tools are accelerating US productivity ..	19, Dec. 4	Tougher grade of SG iron developed ..	7, Jan. 10
Linked Lines		US industry modernizes its plant ..	19, Dec. 11	Materials Handling	
Link lines for medium batch work ..	54, Oct. 9	Which machine for the job? ..	51, Aug. 7	Air powered Udaveyors for press-shop productivity ..	61, Nov. 13
NC linked-line goes to work ..	41, July 24	Machining Centres		B & K automatic sheet stacker ..	20, Feb. 7
Location of Industry		Auctor Multiplex MUT 40A/800CNZ ..	112, June 19	Bronx 48in. by 10 ton recoiler ..	61, Mar. 27
Engineering—the mobile industry ..	38, Oct. 2	Avev DBM machining centre ..	55, May 15	Computer plus shipping centre speed ..	19, May 15
Lubrication		Bohle Bono 63 machining centre ..	116, June 19	Timken deliveries ..	46, Oct. 16
Denison T62 tribotester ..	65, Feb. 28	Brown & Sharps model 234 Hydro-tape ..	114, June 19	Faster shearing at lower cost ..	60, Sept. 11
Farval Multival multiple grease unit ..	53, April 10	Burgmaster improved feed/speed override ..	61, April 17	Fork trucks add safety to hot-metal transfer ..	60, Sept. 11
Lubricating compound for open gears ..	7, May 15	Burkhardt & Weber MC2 machining centre ..	117, June 19	Grip-tow trailers speed press line handling ..	51, April 17
Lubricative film has high bond strength ..	7, Aug. 14	Cincinnati CIM-Xchanger machining centre ..	113, June 19	Lin Bin S range interchangeable containers ..	69, Oct. 9
New silicone grease ..	7, Feb. 28	Design trends in toolchanging machines ..	105, June 19	£1jm. automated warehouse contract ..	15, April 3
Paraffin as a gear lubricant ..	7, Jan. 10	Elund-Matic 2NL machining centre ..	115, June 19	Retractable chute clears press scrap ..	71, Dec. 4
Phosphating compound needs no accelerator ..	24, June 26	Forest No. 3 machining centre ..	117, June 19	Robot automates diecasting ..	50, Dec. 11
Twelve oils to meet all needs ..	41, Aug. 14	Giddings and Lewis 70-NC-25H NumeriCenter ..	117, June 19	Somers crane mounted coil up-and-down ender ..	59, Sept. 18
Users endorse aluminium cutting oil ..	7, Feb. 14	G & L Fraser 70A-NC-15V NumeriCenter ..	114, June 19	Sortimat bulk storage feeders ..	64, Nov. 20
Water absorbent grease ..	7, Sept. 4	Herbert machining centre ..	112, June 19	SPS Micro work support equipment ..	63, July 17
M		Hüller BA 40/18 Hübonat ..	113, June 19	Square-One pallet handling system ..	57, Jan. 17
Machinability		Kearns-Richards series 45 twin table machining centre ..	111, June 19	Stannill Shearveyor ..	20, May 29
'Calibration' of free cutting steels gives machinability data ..	45, Jan. 3	Kolb KBNE 50 RM machining centre ..	115, June 19	Taylor automatic transfer arm ..	20, Oct. 9
Cutting temperature control for machine tools ..	7, Sept. 25	Marwin MEC3 Min-E-Centre ..	113, June 19	Toisa wire-rope flat slings ..	65, Sept. 4
What happens, 'twist chip and tip? ..	43, Mar. 20	Milwaukee-Matic IIIB machining centre ..	111, June 19	Transhandling pallet walls ..	62, Nov. 6
Machine Tool Business		'Open-side' machining centre ..	41, June 3	Measurement	
Alfred Herbert id. to reorganize ..	15, Aug. 14	Staveley "YU" machining centre ..	97, July 10	Caliper ..	44, Oct. 30
Belgium looks for Common Market growth ..	17, July 10	Vero series 2000 machining centre ..	116, June 19	Measuring system based on laser energy ..	7, Mar. 6
Capital spending looks up this year ..	20, Jan. 31	Vero 15/24 1000 series machining centres Mark II ..	57, May 15	Mechanical Handling	
but is it on the right plant? ..	19, Oct. 9	Magnesium		Air bearings for fast changes ..	55, Dec. 11
Czechs push on with machine tool trade ..	19, Oct. 9	Racing sponsors magnesium for production vehicles ..	51, Aug. 28	AMF Versatran D301 robot ..	60, Jan. 17
"Direct threat" to machine tool industry declares MTTA president ..	15, May 29			Clearlift lightweight hydraulic floor crane ..	63, Aug. 7
Elliott hit exports with new machine tools line ..	17, April 3			Courtburn mobile turntable ..	55, June 3
Europe's machine tool firms optimistic ..	19, July 3			Five into one will go ..	41, Jan. 3
Exports main hope for machine tools ..	19, May 15			Fluidics solve orientation problem ..	38, June 5
Herbert-Ingersoll's new-look machine tool factory ..	16, Mar. 6			Industrial nesting platform trucks ..	47, Dec. 18
Herbert take their own medicine ..	17, Mar. 13				
Home orders jump but no recovery signs yet ..	17, Jan. 24				

Jenner unit conveyors	61, July 17
Low-cost mechanical arm	57, Sept. 18
Matbro side/front loading fork lift	20, Mar. 6
Parts transfer by air	30, Oct. 2
Power Lifts right-angle transfer unit	60, May 29
Proximity switches control Vauxhall's five-man crankshaft line	41, May 29
Transmit transfer arm	67, Feb. 7
Udal MA.48.12 air conveyor	35, Jan. 24
Udal press unloader jaw units	55, June 5
Versatran & Simptiran industrial robots	20, Nov. 6
Versatran ready for UK market	19, Nov. 6

Metalizing

Cladding process deposits over 60lb. per hr.	7, May 8
Keeping track of steel products	7, Jan. 31
Production process turning out metalized film	7, April 10
Self-bonding material cuts metal spraying costs	7, Mar. 20

Metalurgy

Atchley 8in. metallurgical grinding & polishing machine	51, Sept. 25
BISRA expand ESRT facility	16, Aug. 28
Computer controls metallurgical testing	7, Sept. 25
Fast way to analyse trace elements	7, Aug. 7
'Ironing out' materials defects	7, Oct. 16
Mini ESR unit	7, Mar. 13
Process refines vanadium to 99.99% purity	7, April 10
Separating copper from ferrous scrap	7, June 5
Steel foil helps steel ingot production	7, Oct. 9

Metal Spraying

Air jacket cuts waste in flame spraying	7, May 1
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Metrication

Countdown starts for metric programme	15, Feb. 28
Engineers report metrication plans	16, Jan. 24
Get those metric orders rolling	15, Oct. 23
Guideline for the metric change	52, Mar. 13
Industry backs metric change by 1975	15, July 24
Industry wants nationwide metric change	19, June 26
Metrication—waiting for the other man	49, Oct. 23
Metric change will involve everybody	19, Nov. 27
Minister agrees to Metrication Board	15, Aug. 7
SI—metrication's twin brother	16, Dec. 18
Timetable this month for metric change	15, Feb. 14
Where can I buy metric hardware	15, Aug. 28

Milling

(see also under 'Copy Milling')

Gearaide milling machine conversion	60, July 24
Generating half-inch spheres	44, May 29
Generating spherical surfaces on a milling machine	45, Sept. 18
Getting the most out of end mills	27, Oct. 30
Gettys 3D electronic tracing unit	20, Oct. 16
Leitz digital precision master dividing head	190, June 19
Matchmaker line following duplicator	24, Nov. 20
NC conversion gives new role to old planer	52, May 29
OMT optical rotary table	186, June 19
Penel milling machine conversion	63, Mar. 27
Planers into plano-millers on pre-production contract	59, July 10
Reducing machining distortion in aluminium forgings	51, Feb. 21
S & B auto indexing flute mill fixture	20, Aug. 7
Top is the target through specialization	19, June 26

Milling Machines

Aciera F5 milling machine	193, June 19
Adcock & Shipley 2ER horizontal miller	139, June 19
Ajax Uni-mill AJ.9 milling machine	20, Aug. 7
Alexander 1:1 copying machine	71, Jan. 10
Archdale Autonomic with 3-axis NC	134, June 19
Asquith 4RM ram type horizontal boring and milling machine	218, June 26
Beaver Mk. II turret mill with 2-axis NC	139, June 19
Beaver Mk. 3 vertical miller	128, June 19
Berico FG2GA vertical turret mill	61, July 24
Bridgeport Line-A-Mill line tracing miller	129, June 19
Bridgeport with True-Trace 180deg. copying	20, Oct. 2
Butler KLD 72 plano-miller	118, June 19
Cerutomatic 5-axis boring and milling machine	97, July 10
Christen KFS chamfer milling machine	89, July 10
Churchill design new multi-purpose machine line	20, Feb. 14
Churchill HB 1200 horizontal boring, milling and facing machine	24, April 24
Churchill HB 600 horizontal boring, milling and drilling machine	212, June 26
CIM-X 330 dual spindle milling and boring machine	125, June 19
Cincinnati 8-spindle travelling column horizontal turret miller	119, June 19
Cincinnati 30in. Hydro-Tel NC milling machine	149, June 19
Cincinnati 3 H-2500 horizontal miller	134, June 19

CNMP TR B5/90 milling and boring machine

CNMP TR B5/90 milling and boring machine	137, June 19
Cramic Superprofiler SP 144	152, June 19
Deckel FPA heavy-duty, universal milling and boring machine	91, July 10
Deckel FP3L universal milling and boring machine	95, July 10
Deckel KF35 copy milling machine	95, July 10
Dufour 624bP programme miller	150, June 19
Elliott Milmor-Matic NC mill with plugboard head cycling	20, Mar. 20
Endomatic Model SMC.70	91, July 10
Forest V500SA 3-axis NC vertical mill	129, June 19
Giewont No. 4 universal M Series miller with pendant control, and motorized overarm	55, June 5
Graffenstaden FB 616 SD.CN bed type miller with 3-axis NC	150, June 19
Grimston VMI high speed milling and boring machine	60, Oct. 16
Hahndorff FHE 52 keyway miller	71, Feb. 7
Hayes Ferranti 19-125 Tapemaster	134, June 19
Hayes Tracemaster TM.43-3D automatic 360deg. copy profile miller	91, July 10
Heller P.F.V.R. 100 III vertical turret mill with continuous path NC	140, June 19
Herbert/DeVlieg 4K-72 Jigmill	245, June 26
Holroyd size 2A rotor milling machine	125, June 19
Huron MU 5 CNC universal NC miller	142, June 19
Huron PU 60 CNC universal milling machine	157, June 19
Hurth LK 1000 automatic keyway miller	137, June 19
Ingers Unimilla turret-type miller	52, Sept. 25
Kearns-Richards SE50 borer/miller	212, June 26
Kopp EKF 35 NC/circular cam copy miller with NC	144, June 19
Maho MH 800 universal tool miller	119, June 19
Matchmaker line following duplicator	24, Nov. 20
Moog Hydra-Point 1000XYZ NC miller	193, June 19
Newall Contimatic NC vertical miller	149, June 19
Noble and Lund H/L R.M.A. ram type miller	125, June 19
Noble and Lund VLMA vertical miller with point to point NC and copying	152, June 19
Oerlikon M10V fitted with decade switch programme control	142, June 19
Parkson DR Series milling machine	140, June 19
Richmond 14-60 miller	133, June 19
Rosenfors RUB 5 motorized overarm	59, Jan. 17
Saalfeld BMRS 32 NC six station turret miller	20, Nov. 13
Sagem U2MN universal miller	152, June 19
Saimo FVS 3/PR vertical programmed miller	65, Oct. 9
SHW-UF 4 universal milling and boring machine	133, June 19
Sixis S101 miller	57, Mar. 20
Staveley FPM30 NC Plano miller	120, June 19
Staveley Type VM115 vertical NC mill	119, June 19
Thiel Duplex 159 fitted with BAC Autograt 400	93, July 10
Thiel Duplex 162 5-axis miller	144, June 19
TOS FC36V vertical bed type miller	120, June 19
Try-Deta Cofres universal miller fitted with copying equipment	85, Dec. 4
Try-Deta programmed universal miller	20, Sept. 4
Uma B.F.36 boring and milling machine	56, Jan. 3
Vero 20/40 turret machine with continuous path milling	69, Oct. 9
Wadkin Routertrace	128, June 19
Wadkin TCD/M 3-axis NC miller	157, June 19
Waltec 18H duplex head automatic miller	52, June 5
Wysbrod type III automatic tool miller	140, June 19

N

Nibbling Machines

GV Senior 1250N nibbler	73, Jan. 10
Trumpf Trumatic 20NC punching and nibbling press	68, July 10

NC Application Economics

Better, cheaper printed circuits through tape control	52, Jan. 3
BSA put low cost into 'economic' batch sizes	20, May 15
Fast changeover—an aspect of NC	45, Sept. 4
Finding the best buy in NC machines	17, June 12
It's the direct savings that justify NC	15, Aug. 7
Making the jet engines of the future	57, May 22
Monitoring chipmaking	44, May 15
NC brings flexibility to NC design	57, Mar. 27
NC intangibles bring the pay-off	29, Nov. 27
NC runs an assembly centre	33, Oct. 30

NC Business

Airmec-AEI NC centre opens	16, Feb. 14
APACE helps beat NC lag	19, Oct. 30
Australia—good market for NC machine tools	19, Oct. 16
BNCs forms London group	20, Jan. 31
BNCs forms South Western branch	16, May 15
Fast growth in NC tools forecast	16, April 3

IRC discusses aid with Molins	15, Feb. 14
Mintech to give another prod to NC	15, Feb. 7
Mintech to prod NC system makers?	15, Oct. 16
Mintech to put £750,000 into NC services	16, Feb. 14
New Plant key to productivity	16, Sept. 18
NC business is booming	15, Nov. 13
NC stars at Japanese show	67, Dec. 4
Tooled, taped and tested	19, July 24
Top is the target through specialization	19, June 26
Why Ferranti chose Grundig	15, July 10

NC Machines and Control Systems

(not turning)

Adaptive control 'package' debuts	49, Aug. 28
Arbomatic 3212 NC drilling machine	20, Aug. 21
Archdale Autonomic NC drill	228, June 26
Asquith Verti-matic NC vertical drill	220, June 26
BSA CD32T six turret co-ordinate drill	220, June 26
Charmilles-Raycon NC microhole drilling machine	24, Sept. 25
Churchill HB1200 NC horizontal boring and milling machine	219, June 26
Cincinnati 3-axis NC single spindle drill	218, June 26
Dixi 5S horizontal jig borer	236, June 26
Elliott Milmor-Matic NC mill with plugboard head cycling	20, Mar. 20
Garrett NC co-ordinate table	233, June 26
Garrett TD 2515 NC drill	219, June 26
Getting the right NC features for your machine	47, Jan. 17
Hauser SNC jig borer	241, June 26
How to marry machine and NC systems	53, Oct. 16
Hypoc 120 S NC jig borer	242, June 26
Kitchen & Walker T.C.2.X.Y. NC drilling machine	225, June 26
Mark Century control goes IC	16, Dec. 4
Meddings twin head NC drilling and tapping machine	20, Aug. 14
Muirhead K-260-A angle digitizer	53, Jan. 24
Newall 1520 NC drilling and milling machine	20, Dec. 11
New Czech machines exhibited recently at the Brno Fair	29, Oct. 30
New NC drive steps out	50, Nov. 13
NC conversion gives new role to old planer	52, May 29
NC goes special purpose on triple head machine	48, Oct. 23
NC linked-line goes to work	41, July 24
NC moves into medium batch production	45, Feb. 7
NCS fixture units for NC machines	64, Nov. 20
Pines Numeri-form NCI tube bender	69, July 10
Qualters & Smith QSR-PNC drill	20, Oct. 30
Richmond NC 2in. capacity drilling machine	233, June 26
Saalfeld BMRS 32 NC six station turret miller	20, Nov. 13
Step by step to computer control of NC	19, Nov. 6
Trumpf Trumatic 20NC punching and nibbling press	68, July 10
Tube bending on sub-contract—by NC	49, April 3
Unimatic NC co-ordinate tables type HL	23, Sept. 4
Vero 14/20 500 series with fluidic NC	225, June 26
Vero 20/40 NC turret machine	52, Jan. 24
Vero 20/40 turret machine with continuous path milling	69, Oct. 9
Wheeler Systems Plan 5 auto tool crib	234, June 26

NC Programming

A ramp up in NC programming	60, Feb. 7
NEL want to know Your views on an NC lathe processor	55, Mar. 20
Numerical Control direct from a computer	42, Aug. 14
NC programme commissioned	16, Oct. 9
NC tapes by computer time-sharing	23, June 11
NC tapes come still faster	16, Dec. 11
Programming ganged setups	41, Nov. 13
Taping point-to-point arcs	43, Nov. 20
The functions of a postprocessor	54, Mar. 13
3D scanning tapes non-geometric shapes	50, Jan. 3

NC Subcontracting

Backing NC all ways	51, Oct. 9
Subcontracting tomorrow's machining problems	47, Mar. 20

NC Turning Machines

BSA Batchmatic 30	194, June 26
CER 200 NC turret lathe	190, June 26
Churchill Red Century 450NC	193, June 26
Churchill-Redman universal NC turning machine	189, June 26
Craven-Swift medium capacity NC swing lathe	251, June 26
Dean Smith & Grace 30 TC lathe	182, June 26
Froepie KE14 Superamic NC vert. turret lathe	249, June 26
Gildemeister RN 40/250 NC lathe	191, June 26
Held DFR2-NCC 1000 heavy-duty NC turret lathe	251, June 26
Herbert NC Programautos	196, June 26
Herbert turning centre	190, June 26

Heyligenstaedt Heynumat FB chucker	191, June 26
HPE NC lathe	248, June 26
J & L 312 NCTL turret lathe	248, June 26
Kearns-Richards S type NC horizontal borer	217, June 26
Koping S10 NC-K lathe	251, June 26
Max Muller MDW10 automatic tool-changing lathe	193, June 26
NC lathes reach for wider appeal	179, June 26
Oerlikon DCN chucking lathe	196, June 26
Pittler Pinumat 'A' NC chucking auto Scharmann NC facing cum boring head	192, June 26
Schies 16 DKE 140 NC/C vertical turret lathe	217, June 26
Tooling for NC lathes	247, June 26
VDF DP250 NC front turning machine	15, Mar. 13
VDF V630NC lathe	191, June 26
Webster and Bennett 48in. NC vertical borer	192, June 26
Wickman CSA 600 compound slide auto	247, June 26
Wickman Lang Numericon NC lathe	189, June 26
	194, June 26

O

Operational Research	
DIY computer simulation technique shows industrial promise	20, April 24
Optical Equipment	
Better, cheaper printed circuits through tape control	52, Jan. 3
Optical attachment cuts lathe downtime	37, Nov. 27
Shadoline Unity 3010 projector	59, Jan. 3

P

Painting	
Car wheel plant switches to electro-phoretic painting	48, Mar. 20
Heat resisting silver paint in aerosol form	7, Jan. 3
Japanese build their own EB paint curer	7, Oct. 23
Vacu-Blast Square 9 blastroom	63, Sept. 4
Photo-etching	
Photo-etching extends its horizons	47, Sept. 25
Planers and Planing	
NC conversion gives new role to old planer	52, May 29
Planers into plano-millers on pre-production contract	59, July 10
Plastics	
An all-plastic integral construction motor car (caption)	17, May 29
Besco-Autocut die cutting press	59, Aug. 21
Cheaper, thicker plastic parts by forging	39, Aug. 7
Cold cure process for cores and moulds	7, April 3
Epoxy powder coating gives high finish at low cost	7, Aug. 28
Extrusion grade ABS for plating	7, Aug. 28
Improved electrostatic powder depositors for cable makers	24, June 26
Injection moulding simplifies assembly	7, Jan. 3
Mould design by slide rule	55, Mar. 6
New epoxy resin for pattern making	7, Feb. 21
New plastic for car bodies	7, Jan. 24
New plastic process uses electron rays	7, June 5
Plastic Coatings' cylinder liner	62, Oct. 23
Plastic cold-formed by regular die stamping	7, Mar. 27
Plastics content to treble in American cars?	7, Jan. 10
Plastics make precision mechanisms	43, Jan. 31
Plastic parts can be fire-proof	7, Oct. 23
Process for longer-life PTFE coatings	7, Feb. 21
Spray your press brake tooling troubles away?	7, Sept. 18
Teflon cuts filtration costs	7, Feb. 7
Plating	
Coating solves wear problems on computer printouts	7, Mar. 13
Copper plating leaves nickel-bright surface	7, July 24
Czechs add silicon carbide to improve nickel plating	7, Feb. 28
Drive for non-toxic plating solutions	7, Mar. 6
Extrusion grade ABS for plating	7, Aug. 28
Fully automatic phosphating plant	33, Aug. 14
Hockley Barraff barrel tipping machine	53, Feb. 14
Soldering the 'unsolderable'	7, May 22
Pneumatics	
AHB compressed air dryer	67, Sept. 18
Air bearings for fast changes	55, Dec. 11
C.P. Class R rotary compressors	20, Aug. 28
Kinetrol model D rotary pneumatic actuator	55, May 8
Martonair air motor	20, Sept. 18
Martonair air/oil unit	59, Aug. 21
Martonair servo torque units	52, Nov. 27
Martonair silenced quick exhaust valves	71, Jan. 10
New Schrader air pressure indicator	55, April 10
Safety first with air circuits	42, Sept. 25
Safety first with air circuits—2	35, Oct. 2

Schrader flow control valve for panel mounting	61, April 10
Schrader 1/2 and 3/4 in. bore, round or square rod cylinders	53, June 12
Schrader improved solenoid midjet spool valves	55, Jan. 24
Unidirectional operating head for poppet valves	53, Feb. 14
Portable Power Tools and Accessories	
Author TE 228 automatic screwdriver	58, Nov. 6
ICI pipe-facing machine	58, Mar. 20
Ingersoll-Rand Impactool 908	47, Aug. 14
Trend die grinder	59, Jan. 17
Valeport rotary trimming shears	60, Jan. 3
Wolf two speed screwdriver	49, Aug. 14
Positioning	
Rutter pneumatic positioning table	53, Jan. 24
Turret press precision sheet positioner	61, Aug. 28
Powder Metallurgy	
Chemical pre-alloying for powder metal parts	7, Nov. 20
Cobalt strip made from powder	7, Jan. 10
Complex parts made by cheaper method	7, April 3
Foreign cars use British sintered parts	47, Nov. 6
New process makes high grade iron powder from scrap	7, May 15
Plasma arc surfacing with metal powder	59, Mar. 27
Powder metal HSS is 2 1/2 times tougher	56, Jan. 10
Sintered parts slash BMC production costs by £120,000 a year	44, Nov. 6
Sintered titanium fittings	7, Nov. 6

Pressetting	
Herbert optical tool presetter	183, June 19
Index tool presetter	49, Nov. 13
Preset Tooling	
Choosing a tool presetting device	45, Sept. 11
from 30 shown at Olympia	
Preset turret tooling fits capstan or auto	35, Jan. 24
Presses and Press Feed Equipment	
Behrens 13 ton turret press	56, Oct. 23
B.H.P. feeder/leveller machines	51, Jan. 24
British built Toro-Pac presses	67, Sept. 18
Bronx bar straightening and burnishing machine	59, Jan. 17
Bronx combined 17 roll leveller and flying shear	209, June 26
Bronx 750 ton tandem press brake	61, Jan. 31
Bronx 250/280-10-8 hydraulic press brake	206, June 26
Buckley & Taylor Ste-Co. press brakes	20, April 3
Clark dial feed	94, April 24
Clark extreme length automatic press feeder	64, Aug. 7
Clarks stock reel snatch assistant	61, April 3
Colbro 20 ton power press	20, Jan. 24
Colex Minipress	207, June 26
Cowlishaw Walker type OB 200 power press	210, June 26
Cowlishaw Walker type S2-250-72-12 blanking press	206, June 26
Craig & Donald 100 ton press brake	63, Aug. 7
Craig & Donald SSX 250 ton extrusion press	71, May 22
Di-Acro power operated stylus turret press	24, Nov. 20
Economic small batch transfer press	45, June 12
Edel type HM punch presses	91, April 24
Edwards 30/60 Besco-Hydrobend press brake	207, June 26
Exacta diesets with Rotolin ball bushes	207, June 26
FB 250 fine blanking press	204, June 26
First two 180in. moving (caption)	17, Sept. 18
GV Senior 1250N. nibbler	73, Jan. 10
Hasenclever hydraulically-driven screw press	73, July 10
HME GH-100 power press	210, June 26
HME Lineflow-system transfer press	205, June 26
HME RI-60/45 Blankmaster press	210, June 26
HME Twin Flow hand transfer press	198, June 26
Jenny heavy duty straightening press	55, Feb. 14
Massey 300 ton wide-ram trimming and setting press	70, July 10
Meyer, Roth & Pastor UB28 universal stamping and forming machine	211, June 26
M.P.J. transfer press	65, Mar. 27
Mubea co-ordinate table for heavy punching	68, July 10
Pierce-All 3025A Perf-O-Mator piercing and duplicating machine	69, Jan. 10
Platarg model 309 transfer press	204, June 26
Preventing hidden overloads in presses	50, Nov. 6
Pullmax-RAS 22-81 duct-forming machine	73, July 10
Rhodes double sided transfer press	204, June 26
Rockwell to build Baird 300 ton Multislide	20, Jan. 17
Rutter Templair air powered press feed	61, Jan. 31
Saunders Presmatic 609 magnetic bench press	20, Sept. 18
Sedgwick plate bending and forming brake press	68, July 10

Shaw 600 ton rubber pad press with blankholder slide	20, July 24
Staveley 15 ton hydraulic press	207, June 26
Stroke arresters bring safety to bigger presses	44, Sept. 4
Sweeney & Blocksidge 30 ton ungearred press	20, Oct. 9
Sycto 6 ton press	59, Sept. 18
Taylor & Challen 75BP open fronted geared press	198, June 26
Taylor & Challen 75 ton open front press	61, Mar. 20
Udal press unloader jaw units	55, June 3
Weatherley - Cincinnati Hydroform model 15-10-7	206, June 26
Weingarten 100 ton high speed press	209, June 26
Weingarten PS180 percussion press	70, July 10
Wilkins & Mitchell H1084-16 draw press	205, June 26

Press Tooling and Presswork	
Brainstorming cuts leadtimes	53, Mar. 20
Checking cutting clearances in press tools	37, June 5
Deep drawing expanded metal	49, Dec. 11
Keeping parts flat in a press	52, Sept. 4
More output from press brakes with safety	65, Jan. 10
ull feed for progressive dies	50, July 17
Spray your press brake tooling troubles away?	7, Sept. 18
Two presses replace a line	34, Nov. 27
Production Control	
CAV sets new efficiency standards	49, May 29
Production control goes professional	19, Nov. 20
Scheduling system raises machine shop efficiency	57, Feb. 21

Profile	
Graham Brown and the Churchill HB600	37, Sept. 25
Harry Mawer and the DSG lathe	43, Oct. 23
Joe Houldsworth and the J & S 1070 cylindrical grinder	62, Dec. 4
Profile of a top production engineer	100, June 19
Eric Desmond of Smiths Industries	

Programming	
Ajax plugboard controlled capstan lathe AJ138	61, Oct. 23
Baldwin programming system for machine tools	20, Oct. 23
Conversion kit boosts capstan output by 40%	49, Mar. 20
Dataset scanner and programming unit	67, Feb. 7
Datex PTB101NC tube bender	69, July 10
DTR 70 high speed tape reader	61, Oct. 16
Gearaide milling machine conversion	60, July 24
ISO tape code goes ahead	20, Feb. 28
Pneumaid pneumatic sequencing programmer	62, Nov. 20
Saimp FVS 3/PR vertical programmed miller	65, Oct. 9
Speytec cyclic programmer	53, June 5
Templair repeater unit for press feeding	44, Oct. 30
Ward JDS with Nickols conversion	61, July 24

PTFE	
Multi-zone oven saves 60% handling space	52, Feb. 21

Q

Quality Assurance	
Know your machine and control your product quality	37, Aug. 21
Quality and Reliability	
Giant firms will tighten screw on quality	23, Sept. 25
Quality approval study moves forward	16, Aug. 21

R

Race Relations	
CBI to study Race Relations Bill	17, April 17
Readout	
Grinders go to digital readout	48, July 24
NumeriRead digital readout	55, June 12
Precisotester length measuring attachment	46, Aug. 14
Put the readout on the work	47, Aug. 21
Readouts, readouts, readouts	40, Jan. 17
Readouts speed setup of coiler	44, Aug. 14
Thiel Duplex 159 fitted with BAC Autograt 400	93, July 10
Trav-A-Dial digital display	63, April 17
Warren Digi-Scale fluidic readout	20, Sept. 18
Research	
BN trend towards technology	16, May 29
Harwell develops industrial collaboration	16, July 10
How to beat the technology gap—Wedgwood Benn	19, Mar. 20
On-line plotting of computer data aids machine tool design	54, Jan. 10
'Shift R & D into industry'—Mullard chief	20, Nov. 20

Mechanical engineers plan united front ..	16, July 24	Value analysis steps out ..	56, Feb. 28	Automatic friction welding in the production line ..	41, Jan. 24
Small foundry units will cease to operate ..	16, Jan. 10	Vertical Turning and Boring Machines		Bisbell magnetic earth return ..	55, May 8
Trade Unions		Bullard 8TC-B vertical chucking auto turret lathe ..	103, July 3	BOC GWM-1 gravity welding equipment ..	63, April 17
Armistice at Girling ..	16, Dec. 18	Herbert Vertical Six chucking automatic ..	249, June 26	BOC mini-deck welder ..	56, June 5
'Disputes procedures should be revised' ..	16, Mar. 20	Martin Vertimat 20 vertical copy turning machine ..	89, July 3	Butt-welded body-side blanks cut costs ..	53, Feb. 21
Don't expect the impossible from the TU Royal Commission ..	15, June 12	Morando LSI vertical turning and boring machine ..	111, July 3	Courtsburn mobile turntable ..	55, June 5
Incomes policy after Croydon ..	15, Mar. 6	Morando VS12 vertical boring and turning machine ..	107, July 3	Crompton-Arc 250 capacitor-discharge stud welding unit ..	83, Dec. 4
Is Jack backing Britain? ..	15, Jan. 10	Ryder 15 in-line twin turning machine ..	113, July 3	EB welder repairs jet engines ..	7, Jan. 17
Report from centenary Trades Union Congress—Blackpool ..	15, Sept. 11	Ryder No.8 side arm Verticalauto ..	103, July 3	F.C. insulated arc welding electrode holders ..	55, July 24
Steel union report solves nothing ..	15, Sept. 4	Ryder 30S Rydermatic ..	91, July 3	Hirst Mk IV Resistance welding current meter ..	57, Jan. 3
TUC counts its supporters today ..	16, Feb. 28	Schiess 16 DKE 140 NC/C vertical turret lathe ..	177, June 19	Latest welding gas is safer ..	7, April 17
TUC prepares to state its case ..	17, Aug. 28	Transfer lines for turning ..	247, June 26	Machine tools are accelerating US productivity ..	19, Dec. 4
Unions squabble over steel clerks ..	16, June 12	Webster and Bennett 48in. NC vertical borer ..	41, Sept. 4	MIG welding goes mobile ..	53, Jan. 10
Who is to represent the managers? ..	17, Dec. 4			Murex Crestex electrodes ..	57, Mar. 20
Training		Vibration		Now it's micro-friction welding ..	53, Mar. 27
Common training standards for EEC ..	19, April 3	Magnetomechanical damping: new insight promises wider application ..	7, May 1	Off-beat uses for CO ₂ equipment ..	50, Oct. 9
Development areas get training grants scheme ..	19, Jan. 3	Resin damps vibration ..	7, Oct. 16	Philips 500A Coolidge welding gun ..	20, Mar. 6
'Earn while you learn' productivity plan ..	57, July 10	Steel-bonded carbide boring bars kill chatter ..	7, Dec. 18	Sciaky CV2 electron beam welder ..	20, Aug. 28
Four new training centres offer 280 first year places ..	23, Jan. 3	Subduing machine tool vibrations ..	52, Feb. 28	Shuttle loaders improve press welder utilization ..	59, Oct. 23
Gunter answers criticisms of manpower training schemes ..	20, Jan. 3			Stalans welding data aids process selection ..	46, May 15
International apprentice competition ..	16, Feb. 28			TRA series welding controls TIG welding machines ..	52, May 22
Lower training levy aids smaller firms ..	23, June 19			Trends in MIG welding ..	60, Sept. 18
They train men to full production pitch ..	64, Feb. 28			TV picks up weld flaws on-the-spot ..	51, Jan. 31
Training must change faster ..	19, Oct. 16			VUZ-ETZ-100 automatic electric slag welder ..	7, May 29
Transfer Machines		Wages and Productivity		Welded composites cut foundry costs ..	62, Nov. 20
Anglo-American machine tool factory delivers the goods ..	44, May 8	-and industry gets on with it ..	15, May 15	Welding copper by modern arc techniques ..	55, May 22
Bader SVIII vertical indexing plate transfer machine ..	59, July 17	-and the car industry could pull out ..	19, Mar. 27	Welding low-carbon stainless steel ..	47, April 17
Duplex-station transfer line for flywheels ..	49, Mar. 13	Blue and white collar pay plans—differences are disappearing ..	16, Nov. 13	Welding Products CO ₂ welding machine ..	7, Feb. 28
Know your machine and control your product quality ..	55, Feb. 7	Brainstorming cuts leadtimes ..	53, Mar. 20	Welding ultra thin materials by micro-plasma ..	53, May 8
Shunt system shortens vee-engine block line ..	37, Aug. 21	Can you beat 1% wage drift with PBR? ..	17, Dec. 18	Welded composites cut foundry costs ..	51, July 24
Transfer lines for turning ..	48, Oct. 16	CBI sounds warning on local bargaining ..	17, Nov. 13	Wescol aluminium welding cable connector ..	7, Nov. 27
Trimming		Chance of solution to pay dispute ..	15, April 17	WLS 40 cold pressure welder ..	63, Nov. 6
Haemmerle copy trimmer ..	41, Sept. 4	Disagreement over wage increase ..	19, Jan. 24		47, Dec. 18
Tube Bending		'Earn while you learn' productivity plan ..	57, July 10	Welfare and Health	
Tube bending on sub-contract—by NC ..	49, April 3	EEF president backs productivity bargains ..	17, Sept. 11	Oil cancer kills through ignorance ..	54, Nov. 20
Tubing		'18 shillings on basic rates' call by TUC ..	21, Nov. 20	Retirement and your pension ..	16, July 10
New TI plant to make bearing race tubes ..	19, April 10	Employers' Federation dips one toe in Engineers boggle at productivity ..	15, Mar. 13	Would you like to retire at 55? ..	17, Mar. 13
Tubing and Tube Benders		Engineers get down to haggling ..	19, Oct. 30	Wire and Wirework	
Carver twin head bending machine ..	65, Sept. 11	Engineers hang on in the pay race ..	16, May 29	Fastener Engineers lin. in-line wire drawer ..	67, Feb. 7
Datex PTB101NC tube bender ..	69, July 10	Engineers may change pay bargaining rules ..	16, Feb. 7	Greenbat capstan wire drawers ..	20, July 24
Flexible hose made from thinwall stainless tube ..	7, Aug. 21	Engineers' pay dispute ends ..	19, Mar. 27	New shaving head speeds copper wire preparation ..	7, April 24
Lang EL/45V 100 mandrel type tube bender ..	85, Dec. 4	Engineers' pay—they are still talking ..	17, Nov. 27	Rolled shaped wire cuts production costs ..	97, June 19
Large pipe-rolling machine ..	58, Aug. 28	Engineers go ahead with £250m. wage claim ..	21, July 3	Six-in hand wire stripper ..	66, Feb. 28
Pines Numeri-form NCI tube bender ..	69, July 10	Galloway bids for enlarged PERA service ..	15, Jan. 17	Torrington NC torsion winder ..	24, Mar. 27
Simplex Auto-Ject pipe benders ..	61, Oct. 16	Half of executives can expect a pay rise ..	15, May 1	Vacuum blast descaling eliminates acid ..	19, May 1
Three-roll tube piercer gets materials handling system ..	7, April 17	Heading for a labour shortage already? ..	21, July 3	Wire making by hydrostatic extrusion ..	7, May 8
		High productivity machine tool factory ..	15, Nov. 6	Workholding Devices	
		How to beat the overtime bogey ..	35, April 10	Clavis toggle-air clamp ..	56, Jan. 3
		Is your pay plan out of control? ..	21, Mar. 27	Coventry multi-mini vice ..	51, Jan. 24
		Job evaluation plans could beat the wages norm ..	15, May 22	F.L.H. Diaphragm chuck ..	63, May 29
		Let's get back to local bargaining ..	17, April 17	Habit universal grinding vice ..	20, Dec. 4
		Machine tools are accelerating US productivity ..	19, Jan. 31	Hardress hydro-pneumatic work holding fixture ..	20, Dec. 11
		Mental process measurement increases productivity ..	19, Dec. 4	Indexable 'chuck' turns many faces automatically ..	31, Aug. 14
Ultrasonics		Production engineers' pay for the 70s ..	54, Jan. 31	J & S bar drilling vice ..	53, Feb. 14
Kerry's ultrasonic universal machine tool ..	66, Feb. 28	Productivity crucial element in pay talks ..	16, Dec. 4	Lo-profile pneumatic chuck ..	59, Aug. 21
New angle on ultrasonic cleaning ..	50, Jan. 31	Prospect of strikes in engineering ..	17, Aug. 14	Magnetic tweezers ..	55, Jan. 24
Self-guided ultrasonic probe scans contours ..	45, Jan. 17	Room to negotiate on engineering pay ..	21, April 24	Multi-Mini twin vice ..	83, Dec. 4
Ultrasonics measure residual stress ..	7, Mar. 20	Salaries jump by 2.6% in 3 months ..	19, Jan. 3	Spiro-lok workpiece clamp ..	60, July 24
Unit Heads		Segregate the short runs ..	38, Jan. 24	Thorpenco model R workholder ..	56, Nov. 6
Ajax unit heads ..	95, July 10	That 3½%—what the PM actually said ..	15, Feb. 21	Thorpenco workholders ..	60, Jan. 17
Dex 70 multi drilling heads ..	236, June 26	TUC counts its supporters today ..	16, Feb. 28	Work Study	
United States of America		2. Aim for productivity bargaining ..	16, Mar. 20	Basic work data—the other side of the coin ..	48, Nov. 6
Machine tools are accelerating US productivity ..	19, Dec. 4	2. TI get 25% more productivity ..	16, May 15	Computerized work study ..	35, Oct. 30
US engineering firms to step up spending ..	19, Nov. 13	UK's engineering output has poor status in semi-global study ..	16, Jan. 10	Fearn metric machining time calculators ..	57, Feb. 14
		Why did they strike?—CBI-TUC study ..	17, May 29		
		You're better off at home ..	17, Oct. 16	Zinc	
V		Welding		ISC open major zinc plant ..	23, May 8
Vacuum Devices		A-1/Guild in-line strip welder ..	67, Feb. 7	New zinc alloys can be sand cast ..	19, Nov. 27
Pneumaid vacuum pump ..	49, Aug. 14	Arc welding small bore tubes ..	53, Mar. 13	New zinc plant should improve customer service ..	54, May 15
Value Analysis		A.R.O. heavy duty section welding gun ..	63, April 3	Visual method tests zinc finishes ..	7, Oct. 9
Effective value analysis needs strong management ..	49, April 10	Assessing weldability of high temperature alloys ..	7, Oct. 30	Zirconium	
Value analysis proves advantages of tubular forgings ..	60, Sept. 11	Author faces critic on copper welding techniques ..	58, May 29	Ti and Zr go into more heat exchangers ..	24, June 26
		Automatic fin welding speeds boiler production ..	44, Oct. 16		

A. & E. Controls Ltd.	67, Feb. 7
A. C. Cutting Machines Ltd.	67, Oct. 16
Abrasive Developments Ltd.	19, May 1
AB Toolfix	60, May 29
Abwood Machine Tools Ltd.	83, July 3
Acbars Ltd.	150, June 19; 179, June 19
Adam Machine Equipment Ltd.	52, Sept. 11; 193, June 19
Adcock & Shipley (Sales) Ltd.	85, July 3; 115, July 3
129, June 19; 139, June 19	20, Oct. 2
Addition Division of the Muirhead Group	24, June 26
Addition Tool Co. Ltd.	49, April 3; 122, July 3
Advanced Developments Engineering Ltd.	69, July 10
AEC Ltd.	16, Dec. 18
AEI-Birlec Ltd.	19, Nov. 20
AEI-Etherlum Ltd.	43, April 10
Aerogel General Corp., USA	7, Aug. 2
Aeroplane & Motor Aluminium Castings Ltd.	7, Jan. 1
A.E.W. Ltd.	60, Sept. 11; 62, Sept. 11
Agemaspark Ltd.	45, Aug. 28
Agie Industrial Electronics Ltd.	41, Aug. 21
A.H.B. Services (Engineering) Ltd.	67, Sept. 18
Airflow Developments Ltd.	66, May 29
Airmec-AEI Ltd.	16, Feb. 14; 52, April 10
184, June 19; 135, July 3	67, Feb. 7
A-I Welders Ltd.	67, Feb. 7
Ajax Electric Co. USA	7, Aug. 28
Ajax Machine Tool Co. Ltd.	95, July 10
20, Aug. 7; 61, Oct. 23	44, Oct. 30
Ajax Magnethermic, USA	7, June 3
Abright & Wad Ltd.	7, Aug. 21
Alcan Aluminium (UK) Ltd.	23, June 5
Alcan Industries Ltd.	7, Sept. 18
51, Feb. 21; 17, Oct. 9	55, Sept. 25
Alcoa International, Switzerland	71, Feb. 7
Aldridge Tool & Engineering Co. Ltd.	71, Jan. 10
Alexander Machinery Ltd., Geo. H.	64, Mar. 13; 175, June 19
Allen & Co., P.W.	61, Aug. 7; 49, Oct. 30
20, Jan. 24	62, Nov. 13
Allard Ironfounders Ltd.	79, Mar. 6; 42, July 17
Almar-York Co., USA	44, May 15
Almco Supersheen Div. of GB Ltd.	20, Feb. 7
86, April 24; 38, Nov. 27	7, Mar. 27
Aluminium Company of America	7, Dec. 18
15, Jan. 10	21, April 24
Amalgamated Engineering Union	21, July 3
Amalgamated Union of Engineering and Foundry Workers	15, Jan. 17; 7, Jan. 24
AMEX Speciality Metals Inc. USA.	7, Jan. 24
American Abex Corporation	31, Oct. 30
American Air Filter (Great Britain) Ltd.	65, Feb. 7
American Machine & Foundry Co. USA.	19, Dec. 4
American Machinist	49, Dec. 11
American Metal Stamping Association	73, Dec. 4
American Society of Diecasting Engineers Inc.	7, Dec. 11
AMF Thermatool, Inc.	64, Feb. 28
Anglo-Swiss Screw Co. Ltd.	19, Oct. 30
APACE Centre	6, Oct. 3
A.P.I. Waircom, Italy.	134, June 19
Archdale & Co. Ltd., James	61, Aug. 29
Argall Machine Tool Co. Ltd.	44, May 21
Argonne National Laboratory, USA.	71, Feb. 21
Argos Switches Ltd.	20, May 29
Armstrong Bros. (Knottingley) Ltd.	63, April 3
ARO Machinery Co.	7, July 12
Arwood Corp., USA	48, Sept. 11
Asghol Steel & Engineering Co. Ltd.	63, Sept. 11
Asquith Ltd., William (Staveley)	119, June 19
218, June 26	52, April 10
Assembly Engineers Inc., USA.	43, Jan. 17
Associated Electrical Industries Ltd.	15, Feb. 21
Associated Industrial Consultants Ltd.	19, Jan. 3
Association of Bronze & Brass Founders	16, Jan. 10
Association of German Machine Manufacturers (VDMA)	17, Jan. 10
Association of Scientific Technical and Managerial Staffs	16, June 12; 17, Dec. 4
ASTME	7, Jan. 31
Astromet Associates Inc.	7, Nov. 20
Austsystems International Inc., USA.	7, Mar. 7
ATA (Grinding Processes) Ltd.	94, April 24
Atchley Tools Ltd.	51, Sept. 25
Atomenerg AB	7, Oct. 23
Automatic Grinding Machine & Eng. Co. Ltd.	20, Nov. 27
Automation Ltd.	67, Feb. 7; 96, July 3
Aven Tools Ltd.	20, Sept. 4
Avery Trimtool Ltd.	2, Sept. 4
Avery Ltd., W. & T.	40, April 10; 48, Oct. 23
Averybus Automation Ltd.	61, Oct. 23

Babcock & Wilcox	31, Sept. 18
Badalex Division of the Sale-Tilney Group	56, Jan. 31

Badalex Ltd.	47, Feb. 14
Baer, Fred	18, Oct. 9
Baker Perkins Ltd.	39, July 24
Balding Engineering Ltd. 128, June 19;	139, June 19
Baldwin Hardware Company	52, Nov. 6
Baldwin Lima Hamilton Corp.	51, Mar. 20
Balteau, S.A. Usines	57, Jan. 17
B. & K. Machinery Ltd.	20, Feb. 7
B. & T. Tools Ltd.	56, July 24
Banks, Howard	32, July 24
	43, Oct. 16;
Barker Machine Tools & Equipment Ltd.	59, Aug. 7
24, Nov. 20; 50, Nov. 27;	15, Dec. 4
	49, Dec. 18
Barlow, B. V.	45, Sept. 18
Barlow-Whitney Ltd.	69, Jan. 31
Barpet Machines	55, July 24
Bates, A. P. and Booth S. E. of BNFEMRA	21, Aug. 24
Bath University of Technology	7, Sept. 25
	19, Sept. 25
Battelle Memorial Institute	7, Oct. 9
Battelle Technical Review	7, Jan. 17
Baul, R. M.	34, Dec. 18
Bayer A.G. Frankfurt	17, May 29
Bedford (Machine Tools) Ltd.	55, Sept. 25
Bell Aircraft Corp., USA	58, Mar. 20
Belford (Machine Tools) Ltd.	22, Oct. 30
Bell Telephone Laboratories	7, Aug. 7
Bellows-Valvair Ltd.	45, Oct. 16
Bendix Corporation, USA	7, May 8
Bennet Tools Ltd.	7, Aug. 14
Bethlehem Steel Corp. USA	46, Jan. 24
	7, April 7
	51, Jan. 24
BHP Machine Tool Co. Ltd.	19, Oct. 23
Biennale Italiana Della Macchina Uien-	
sile (Bi-Mu)	
Bifurcated & Tubular Rivet Co. Ltd.	
The	65, Mar. 27
Bigwood & Son, Joshua	65, Nov. 20
Biggs & Berry Lathes Ltd.	58, Mar. 20
Birwell, J. W.	15, Dec. 11
63, Sept. 11;	55, May 8
Bisbell Engineering Co. Ltd.	15, Dec. 11
Blakesley Reid Ltd.	49, Aug. 14
Blamphin, John	63, Mar. 6
E. W. Bliss & Co.	52, Sept. 4
Bloss, R. P.	42, Jan. 17
BMC Service Ltd.	16, Mar. 20
Board of Trade	15, Jan. 24;
19, Jan. 24; 20, Jan. 31;	21, April 24
17, May 29; 23, June 5;	24, June 19
38, Oct. 2;	17, Oct. 9
Boeing Co., USA	49, April 17
Booth Aluminium Ltd., James	7, Feb. 21
	17, Oct. 9
	7, April 3
Borden Chemical Co. (UK) Ltd	39, July 24
	16, Aug. 14
Borg-Warner Ltd.	46, Feb. 7;
Bosch Machines	42, Oct. 23
Bossmoor Machine Tools Ltd.	55, Feb. 14
BPS Machinery & Spares Co. Ltd.	116, June 19
170, June 19; 89, July 10;	49, Oct. 11
BP Technical Services of Shell-Mex-	
co. Ltd.	7, Feb. 28;
Brass & Alloy Pressings (Deritend) Ltd.	43, June 12
Brasshouse Ltd., Peter	20, Aug. 14
Brierley Ltd., Z.	7, May 29;
Bristol Aerospace Ltd.	64, Aug. 7
Bristol Erickson Ltd.	47, Aug. 21
Bristol Siddeley Engines Ltd.	65, Feb. 28
Bristol University	45, Jan. 17
Britannia Iron & Steel Works Ltd.	20, Sept. 25
Britec Ltd.	42, July 17
British Aerospace Ltd.	69, Jan. 10
British Aircraft Corporation (Industrial	47, Aug. 21
Products Group)	
British Aircraft Corporation Ltd.	127, July 3
23, May 8; 53, July 10	52, Jan. 3
British Aluminium Co. Ltd.	60, July 24
British Brown Boveri Ltd.	23, June 5
British Cast Iron Research Association	43, Jan. 17
	7, April 3
	39, July 24
British Federal Welder & Machine Co.	
Ltd.	46, May 15
British Hydromechanics Research Associa-	
tion	7, July 17
British Insulated Callender's Cables Ltd.	23, June 5
British Iron and Steel Federation	24, June 5
British Iron & Steel Research Associa-	
tion 7, Jan. 3; 7, Jan. 31;	16, Aug. 28
British Leyland Motor Corporation	17, Jan. 24
15, Aug. 14;	15, Oct. 9
British Mechanical Engineering Con-	
federation	46, Mar. 20
British Motor Corporation Ltd.	18, Nov. 6
14, Mar. 27; 35, May 8;	16, Mar. 13
British National Export Council	19, Aug. 7
British Non-Ferrous Metals Research	
Association	7, Mar. 6;
7, Oct. 2; 19, Nov. 27;	16, May 29
British Numerical Control Society	75, Dec. 4
	20, Jan. 31
British Olivetti Ltd.	16, May 15
112, June 19;	184, June 19
	127, July 3
British Oxygen Co. Ltd ... 7, Feb. 28;	63, April 17
	56, June 19

British Power Press Manufacturers Association	16, Oct. 23
British Production and Inventory Control Society	19, Nov. 20
British Ropes Ltd.	97, June 19
British Standards Institution	16, Jan. 24
23, Jan. 31; 15, Feb. 14;	15, Feb. 28
19, June 26;	15, July 24
British Steel Castings Research Association	7, Jan. 24
British Steel Corporation	17, Feb. 14;
23, May 8; 19, May 22;	24, June 5
46, June 5; 16, June 12;	53, June 12
16, Aug. 21; 42, Aug. 21;	43, Oct. 16
16, Oct. 30; 21, Nov. 20;	17, Dec. 4
15, Dec. 11;	15, Dec. 18
British Timken (division of the Timken Roller Bearing Co.)	45, Dec. 1
British Welding Research Association	53, Mar. 2
	7, Oct. 16
Broadbent-Schofield Ltd.	23, June 5;
Brook & Co. Ltd., L. & T. I.	164, June 19
Brolund T.	65, April 17
Bromsgrove College of Further Education	51, Aug. 7
Bronx Engineering Co. Ltd., The	51, June 5
61, Jan. 31; 61, Mar. 27;	59, Jan. 17
209, June 26; 69, July 10;	206, June 26
Brookes, K. J. A.	58, Aug. 28
Brookes (Oldbury) Ltd.	43, Mar. 20
	115, July 10
Brooke Tool Manufacturing Co. Ltd.	111, July 3
Brookman Ltd., R. S.	234, June 26
Broom & Wade Ltd.	62, Feb. 21; 23, May 8
Brosheer, Ben C.	46, Jan. 24; 63, July 10
	41, July 24
Broughton & Son (Engrs.) Ltd. J.	60, Jan. 3
Brown & Sharpe Ltd.	158, June 26;
91, July 3; 39, July 17;	89, July 17
Brown & Sons (Colbro) Ltd., Arthur A.	20, Aug. 14
Brown & Ward (Tools) Ltd.	91, July 3
Brown, Graham	37, Sept. 25
Brumeca	53, Oct. 23
Brunner Machine Tools Ltd.	169, June 26
89, July 10; 59, July 17;	55, Sept. 25
	50, Dec. 18
Bryant Grinder Co., USA.	54, Feb. 28
Bryant Machine Tool Co.	63, May 29
BSA Metal Components Division	47, Nov. 6
BSA Precision Castings Ltd.	56, Mar. 20
BSA Sintered Components Ltd.	44, Nov. 6
BSA Tools Ltd.	56, Mar. 20;
29, June 26; 94, July 10;	91, July 10
95, July 10; 61, Aug. 7;	48, Sept. 4
BTR Industries Ltd.	52, Feb. 21
Buck & Hickman Ltd.	43, Jan. 17; 114, June 19
153, June 26; 174, June 26;	248, June 26
	103, July 3
Buckley & Taylor Ltd.	20, April 3
Buhler Bros. (England) Ltd.	51, Oct. 2
Buhr Machine Tool Co. (UK Division)	44, May 8
Bullock & Turner Ltd.	53, May 8
Bulpitt & Sons Ltd.	49, Mar. 20
Bunker-Ramo Corp., USA.	47, Jan. 17
Bureau of Mines, USA	7, June 5
Burfell Ltd.	61, Sept. 11; 83, Dec. 4
Burgmaster Ltd.	61, April 17; 20, Sept. 2
Burguoss Corp., USA.	52, April 10
Burton Griffiths & Co. Ltd.	40, Oct. 2
	51, Oct. 2
Burton, Harold	57, May 1
Bush Beach & Segner Bayley Ltd.	63, Oct. 19
Butler Machine Tool Co. Ltd.	118, June 19
	212, June 26; 57, Aug. 18
Butrick, Frank M.	35, June 12
Butterworth British Automatic Machine Tool Co. Ltd.	20, Aug. 7
C	
Cambridge Corporation	54, May 29
Cardibex Corporation USA	7, Feb. 28
	57, Nov. 20
Cardew Ltd., Alexander	53, Oct. 2
Cardew (Diestring Equipment) Ltd.	
Alexander	55, Oct. 2
Carnie & Co. Ltd., Rudolph	142, June 19
	50, June 19
Carver & Co. Ltd.	63, Sept. 11; 59, Sept. 18
Castle, Mrs. Barbara	15, May 15; 19, Oct. 16
	19, Dec. 11
Catmur Machine Tool Corp. Ltd.	60, May 29
171, June 19; 242, June 26;	49, Sept. 11
Cave-Cut Machine Tool Co. Ltd.	24, Sept. 25
CAV Ltd.	49, May 29; 55, May 29
Cerac, USA	29, Oct. 2
Chadwick Ltd., Cobain	7, Aug. 14
Chadwick, Peter J.	19, Aug. 28
Chadwick, Harry T.	57, Aug. 7
Channel Tool Distributors Ltd.	59, Jan. 31
	24, Sept. 25
Christ, Charles F.	55, Jan. 3
Chromalloy American Corp.	7, Dec. 14

Churchill Ltd., Charles H.	20, Feb. 14	20, Feb. 14	Dimo Ltd.	59, Oct. 2	Fries Sohn, J. S.	59, Oct. 2
52, Feb. 14; 24, April 24	170, June 19	170, June 19	Distington Engineering Co. Ltd.	67, Feb. 28	Frost & Co. Ltd., Harvey	63, Aug. 7
189, June 26; 193, June 26	212, June 26	212, June 26	Dixi Machine Tool Co. Ltd.	236, June 26	Frost Engineers (Coleshill) Ltd., W.	63, Aug. 7
219, June 26; 249, June 26	108, July 3	108, July 3	Donovan Commission	20, June 26; 15, Dec. 11	Frye Machine Tools Ltd.	20, Jan. 10
49, Sept. 11; 52, Sept. 11	37, Sept. 25	37, Sept. 25	Dorvic Engineering Co.	20, Aug. 21	Fujitsu	51, Nov. 13
Churchill Gear Machines Ltd.	174, June 26	174, June 26	Dow Chemical Co. Ltd.	51, Aug. 28	Funditor Ltd.	63, July 17
Churchill Machine Tool Co. Ltd.	177, June 26	177, June 26	Dowling & Doll Ltd.	53, Sept. 11		60, Nov. 13
151, June 26; 156, June 26	163, June 26	163, June 26	Dowty Fuel Ltd.	43, Dec. 18		
48, July 24; 52, Aug. 28	52, Aug. 28	52, Aug. 28	Drayton Controls Ltd.	31, Aug. 14		
CIBA (ARL) Ltd.	52, April 17	52, April 17	Drill Service (Horley) Ltd.	52, Feb. 14; 57, May 15		
Cincinnati Milling Machine Co. USA.	49, Aug. 28	49, Aug. 28	Drynams Ltd.	64, Dec. 11		
Cincinnati Milling Machines Ltd.	45, Feb. 7	45, Feb. 7	Dunbar & Co. Ltd.	7, Aug. 28		
47, April 3; 113, June 19	119, June 19	119, June 19	Du Pont de Nemours International S.A.	20, Oct. 9		
125, June 19; 134, June 19	149, June 19	149, June 19	Switzerland	7, Feb. 7		
152, June 26; 159, June 26	218, June 26	218, June 26	Dustaflex Ltd.	67, Oct. 9		
21, July 3; 87, July 3	16, Sept. 4	16, Sept. 4	Dynacast International Ltd.	49, Oct. 2		
49, Sept. 11; 49, Sept. 18	20, Dec. 18	20, Dec. 18				
Cimtrol Electronics Ltd.	53, Oct. 16	53, Oct. 16				
Clarke Chapman & Co. Ltd.	44, Oct. 16	44, Oct. 16				
Clarke Machine Tool Co., Alan J.	24, Mar. 27	24, Mar. 27				
Clarkson (Engineers) Ltd.	57, Aug. 21	57, Aug. 21				
Clarks Press Equipment Ltd.	61, April 3	61, April 3				
Clavis Clamps Ltd.	56, Jan. 3	56, Jan. 3				
Clements, G. H.	19, Oct. 16	19, Oct. 16				
Clerical and Administrative Workers' Union	16, June 12	16, June 12				
Cleveland Refractory Metals	7, Nov. 20	7, Nov. 20				
Clifton & Baird Ltd.	61, Oct. 16	61, Oct. 16				
Cobden Chadwick Ltd.	45, Feb. 14	45, Feb. 14				
Coffman, P. M.	39, Aug. 7	39, Aug. 7				
Colchester Lathe Co. Ltd.	20, April 10	20, April 10				
Cold Precision Forgings (D. & C.) Ltd.	44, Mar. 27	44, Mar. 27				
Coley Bros. (Tools) Ltd.	207, June 26	207, June 26				
Cone Automatic Machine Co. Ltd.	154, June 26	154, June 26				
Confederation of British Industry	19, Jan. 24	19, Jan. 24				
19, Feb. 28; 17, April 17	17, May 22	17, May 22				
17, May 29; 19, June 26	21, June 26	21, June 26				
19, July 10; 17, Oct. 23	17, Nov. 13	17, Nov. 13				
Confederation of Shipbuilding and Engineering Unions	15, April 17	15, April 17				
Conservative Party	17, Aug. 14	17, Aug. 14				
Consolidated Pneumatic Tool Co. Ltd.	69, Feb. 21	69, Feb. 21				
Continental Manufacturing Inc.	20, Aug. 28	20, Aug. 28				
Copper Development Association	46, Oct. 16	46, Oct. 16				
Cosmea, Switzerland	58, May 29	58, May 29				
Courburn Positioners Ltd.	57, Sept. 11	57, Sept. 11				
Coventry Gauge & Tool Co. Ltd.	55, June 5	55, June 5				
54, April 3; 30, Sept. 18	21, Jan. 31	21, Jan. 31				
Coventry Movement Co. Ltd., The	51, Jan. 24	51, Jan. 24				
Coventry Precision Ltd.	83, Dec. 4	83, Dec. 4				
Cowlishaw Walker & Co. Ltd.	236, June 26	236, June 26				
Cram Engineering Co. Ltd.	152, June 19	152, June 19				
Cravens Machines Ltd.	206, June 26	206, June 26				
Crompton Parkinson Co. Ltd.	210, June 26	210, June 26				
Cross Co., USA	50, April 3	50, April 3				
Cross International A.G.	132, June 19	132, June 19				
Crosland, Mr. Anthony	83, Dec. 4	83, Dec. 4				
Crucible Steel Co. USA	56, Sept. 11	56, Sept. 11				
Crustel Ltd.	17, Sept. 4	17, Sept. 4				
Curcio, Dominic	17, May 29	17, May 29				
Cytrigen Welder Co. Ltd.	56, Jan. 10	56, Jan. 10				
Czechoslovakia	52, July 24	52, July 24				
Czechoslovakian Embassy (commercial section)	20, July 17	20, July 17				
	53, July 24	53, July 24				
	7, Feb. 28	7, Feb. 28				
	47, Dec. 18	47, Dec. 18				
	62, Nov. 20	62, Nov. 20				
	52, Sept. 18	52, Sept. 18				
	13, Mar. 6	13, Mar. 6				
	20, Oct. 16	20, Oct. 16				
	61, Oct. 16	61, Oct. 16				
	57, Sept. 18	57, Sept. 18				
	20, April 17	20, April 17				
	163, June 26; 217, June 26	163, June 26; 217, June 26				
	112, July 3	112, July 3				
	20, Dec. 4	20, Dec. 4				
	63, July 10	63, July 10				
	58, May 29	58, May 29				
	7, Jan. 3	7, Jan. 3				
	182, June 26	182, June 26				
	47, Sept. 11	47, Sept. 11				
	43, Oct. 23	43, Oct. 23				
	17, Oct. 23	17, Oct. 23				
	43, Feb. 14	43, Feb. 14				
	5, July 17	5, July 17				
	19, May 29	19, May 29				
	23, June 26	23, June 26				
	65, Feb. 28	65, Feb. 28				
	21, Mar. 27	21, Mar. 27				
	17, Oct. 9	17, Oct. 9				
	15, Dec. 11	15, Dec. 11				
	100, June 19	100, June 19				
	64, Mar. 6	64, Mar. 6				
	41, Aug. 28	41, Aug. 28				
	7, Feb. 21	7, Feb. 21				
	7, May 15	7, May 15				
	71, Feb. 28	71, Feb. 28				
	7, July 17	7, July 17				
	20, Nov. 6	20, Nov. 6				
	37, Feb. 14	37, Feb. 14				
	51, Jan. 10	51, Jan. 10				
	55, Sept. 11	55, Sept. 11				
	55, Oct. 2	55, Oct. 2				
	59, Oct. 2	59, Oct. 2				
	67, Feb. 28	67, Feb. 28				
	236, June 26	236, June 26				
	48, July 17	48, July 17				
	15, Dec. 11	15, Dec. 11				
	20, Aug. 21	20, Aug. 21				
	51, Aug. 28	51, Aug. 28				
	53, Sept. 11	53, Sept. 11				
	43, Dec. 18	43, Dec. 18				
	31, Aug. 14	31, Aug. 14				
	57, May 15	57, May 15				
	64, Dec. 11	64, Dec. 11				
	7, Aug. 28	7, Aug. 28				
	20, Oct. 9	20, Oct. 9				
	7, Feb. 7	7, Feb. 7				
	67, Oct. 9	67, Oct. 9				
	49, Oct. 2	49, Oct. 2				
	60, Sept. 11	60, Sept. 11				
	15, Oct. 9	15, Oct. 9				
	21, June 5	21, June 5				
	17, Nov. 13	17, Nov. 13				
	20, Nov. 20	20, Nov. 20				
	16, July 10	16, July 10				
	79, Feb. 21	79, Feb. 21				
	117, July 3	117, July 3				
	85, Dec. 4	85, Dec. 4				
	48, July 17	48, July 17				
	131, July 3	131, July 3				
	40, Jan. 17	40, Jan. 17				
	55, April 10	55, April 10				
	61, Nov. 20	61, Nov. 20				
	7, April 3	7, April 3				
	47, Mar. 20	47, Mar. 20				
	7, Aug. 28	7, Aug. 28				
	49, Sept. 18	49, Sept. 18				
	20, Oct. 23	20, Oct. 23				
	17, April 3	17, April 3				
	24, Jan. 31	24, Jan. 31				
	20, Nov. 27	20, Nov. 27				
	20, Mar. 20	20, Mar. 20				
	20, Dec. 18	20, Dec. 18				
	71, Feb. 7	71, Feb. 7				
	20, Feb. 21	20, Feb. 21				
	76, July 10	76, July 10				
	20, Aug. 14	20, Aug. 14				
	49, Oct. 2	49, Oct. 2				
	54, Oct. 9	54, Oct. 9				
	57, May 15	57, May 15				
	63, Aug. 7	63, Aug. 7				
	15, Jan. 17	15, Jan. 17				
	21, May 8	21, May 8				
	16, Dec. 11	16, Dec. 11				
	16, July 10	16, July 10				
	23, Jan. 3	23, Jan. 3				
	53, June 19	53, June 19				
	55, May 8	55, May 8				
	19, May 1	19, May 1				
	55, Sept. 18	55, Sept. 18				
	20, Feb. 28	20, Feb. 28				
	7, July 24	7, July 24				
	7, May 22	7, May 22				
	43, Dec. 18	43, Dec. 18				
	61, Oct. 16	61, Oct. 16				
	187, June 19	187, June 19				
	19, April 3	19, April 3				
	53, Mar. 20	53, Mar. 20				
	60, Feb. 7	60, Feb. 7				
	66, Feb. 21	66, Feb. 21				
	24, June 19	24, June 19				
	54, Nov. 6	54, Nov. 6				
	112, July 3	112, July 3				
	40, Jan. 17	40, Jan. 17				
	53, April 10	53, April 10				
	57, Feb. 14	57, Feb. 14				
	21, Jan. 31	21, Jan. 31				
	131, July 3	131, July 3				
	49, Aug. 21	49, Aug. 21				
	54, Nov. 13	54, Nov. 13				
	55, Sept. 18	55, Sept. 18				
	16, Oct. 30	16, Oct. 30				
	16, Nov. 27	16, Nov. 27				
	36, Dec. 18	36, Dec. 18				
	7, Jan. 24	7, Jan. 24				
	7, Aug. 21	7, Aug. 21				
	50, Dec. 18	50, Dec. 18				
	46, Dec. 11	46, Dec. 11				
	42, July 17	42, July 17				
	16, Dec. 18	16, Dec. 18				
	7, May 1	7, May 1				
	46, Nov. 20	46, Nov. 20				
	51, April 17	51, April 17				
	33, May 8; 46, May 15	33, May 8; 46, May 15				
	7, May 22	7, May 22				
	33, Aug. 14	33, Aug. 14				
	7, Feb. 7	7, Feb. 7				
	71, Feb. 21	71, Feb. 21				
	16, Oct. 2	16, Oct. 2				
	17, July 24	17, July 24				
	45, Dec. 18	45, Dec. 18				
	15, May 1	15, May 1				
	52, June 26	52, June 26				
	51, Jan. 10	51, Jan. 10				
	55, Oct. 9	55, Oct. 9				
	55, April 10	55, April 10				
	194, June 26	194, June 26				
	59, Oct. 2	59, Oct. 2				
	63, Aug. 7	63, Aug. 7				
	20, Jan. 10	20, Jan. 10				
	51, Nov. 13	51, Nov. 13				
	63, July 17	63, July 17				
	60, Nov. 13	60, Nov. 13				
	15, May 29	15, May 29				
	52, April 17	52, April 17				
	233, June 26	233, June 26				
	77, July 3	77, July 3				
	19, Jan. 24	19, Jan. 24				
	52, Nov. 27	52, Nov. 27				
	16, Mar. 13	16, Mar. 13				
	60, July 24	60, July 24				
	84, April 24	84, April 24				
	7, Oct. 23	7, Oct. 23				
	16, Dec. 4	16, Dec. 4				

N

Naharro, Gerald 16, May 1

National Aeronautical and Space Administration, USA 7, Mar. 13;
National Association of Iron and Steel Stockholders 24, June 5
National Board for Prices and Incomes 15, May 22; 16, Nov. 13;
19, Dec. 11; 15, Dec. 18;
National Cash Register Co. 52, Sept. 4
National Economic Development Council 17, Nov. 13
National Economic Development Office 20, Jan. 31
16, Feb. 21;
National Engineering Laboratory 60, Feb. 7
55, Mar. 20; 7, May 8;
19, Sept. 25
National Federation of Engineers' Tool Manufacturers 16, Oct. 23
National Institute of Industrial Psychology 58, Feb. 7
National Research Development Corporation 16, Jan. 24;
61, Mar. 27
National Steel Co. 58, May 1
National Twist Drill & Tool Co. 27, Oct. 30
Neill & Co. (Sheffield) Ltd., James 55, July 24
Newall Engineering Co. Ltd. 149, June 19
186, June 19; 160, June 26;
Newall Group Sales Ltd. 169, June 26
48, July 24; 49, Sept. 18;
Newall Machine Tool Co. Ltd., Alexander S. 40, Jan. 17;
59, July 17
New Britain Machine Co. 55, Sept. 4
Newbury Industries Inc., USA 63, July 10
New Conveyor Co. Ltd. 57, Jan. 17
Nickols Automatics (EMI) Ltd. 130, July 3
61, July 24
Nickols Ltd., Ian 129, July 3
Nippon Bulge Industries Ltd. (Tokyo) 13, April 24
Nissan Motors of Yoshiwara, Japan 17, Dec. 11
Noble & Lund Ltd. 125, June 19
Norgren Ltd., C.A. 93, April 24
Normidaire Ltd. 64, Mar. 13
North American Aviation 7, June 5
North American Rockwell Corporation 7, April 24
7, Sept. 18
Norton Abrasives Ltd. 7, April 17
Norton & Son (Metals) J. 54, Nov. 13
Norton Co., USA 48, May 8;
7, Dec. 18
Nottingham University 15, Sept. 18;
Numerical Control Services 64, Nov. 20
Numerically Controlled Machine Tools Ltd. 55, May 15;
67, Dec. 4
Nuttall, David E. 47, Aug. 21

O
Oates & Associates Ltd., J. P. 31, Aug. 14
Odessa Institute of Technology 7, Sept. 11
Ogura, Takashi 73, April 24
Ohio State University, USA 7, May 29
Oliver, C. V. 52, Jan. 3
Olivetti & C. S.p.A., Ing. C. (Italy) 40, Jan. 17
16, Oct. 9
Olufson Corp. 63, Mar. 13
Optical Measuring Tools Ltd. 16, July 24
16, Sept. 18
Optical-Mechanical (Instruments) Ltd. 45, Sept. 11
Organization for Economic Cooperation and Development 16, Jan. 10;
20, Jan. 31
Osborn & Co. Ltd., Samuel 20, Jan. 3
Osborn Steels Ltd. 7, Nov. 20
Oxford University 16, Oct. 16

P
Palmer Lewis, I. 34, Dec. 18
PA Management Consultants 21, July 3
Panelcraft Precision (Feltham) Ltd. 59, Aug. 7
Park Gate Iron & Steel Co. Ltd. 45, Jan. 3
Parkinson & Son (Shipley) Ltd. 140, June 19
177, June 26
Parkinson, R. A. 20, Feb. 28
Payne Products International Ltd. 169, June 26
Peace River Mining & Smelting Ltd. 7, May 15
Pearson Panke Ltd. 209, June 26
7, Jan. 10
P-E Consulting Group Ltd. 16, Mar. 13
20, April 24
Pels (Agencies) Ltd., Henry 82, April 24
154, June 26; 193, June 26;
49, Sept. 4
Penel Pneumatics Ltd. 64, Nov. 20;
47, Dec. 18
Penfold Metallizing Co. Ltd. 63, Mar. 27
Pennsalt Ltd. 60, Jan. 3
24, June 26
Perkins Engines Group Ltd. 143, June 26
19, Sept. 18; 48, Oct. 16;
41, Oct. 23
Pethig, Dr. R. 7, July 24
7, Jan. 10
Phizer Ltd. 7, Jan. 10
Phillips Gloeilampenfabrieken, Eindhoven, Holland 57, Mar. 27
Phillips Industries 23, Sept. 25
Phillips Welding Ltd. 20, Mar. 6
Physical Society 7, Dec. 4
Picard & Frere Ltd., Henri 57, Jan. 17
66, Feb. 28; 55, Sept. 23;
49, Oct. 30
38, Nov. 6
Picutiny Arsenal, USA 53, Mar. 20
Pierce-All Manufacturing Ltd. 69, Jan. 10
Pillarski, Laura 20, July 17
Pitter Gauge & Tool Co. Ltd. 21, Jan. 31
Pittler Company, Germany 15, Mar. 13
53, July 17
Pittler (Gt. Britain) Ltd. 164, June 19;
179, June 19
192, June 26

Pittsburgh Metals Purifying Co. 7, Oct. 9
Plastic Coatings Ltd. 62, Oct. 23
Platarg Engineering Ltd. 204, June 26
Platt Malleable Casting Ltd. 42, July 17
Plessey Automation Group 128, July 3
130, July 3
Plessey Dynamics Group 41, Dec. 18
Plessey Co. Ltd., The 43, Jan. 17;
49, May 29
38, June 5
Plume Ltd., A. W. 20, Oct. 2
PMT (Machine Tools) Ltd. 59, July 17
65, Oct. 9
62, Nov. 20
Pneumaid Ltd. 49, Aug. 14;
Pneumatic Automatic Control Equipment Ltd. 54, May 8
227, June 26
Pollard & Co. Ltd., Frederick 67, Sept. 18;
45, Oct. 16
93, April 24
Polstore (Materials Handling) Ltd. 20, July 24
Powell Ltd., C. B. 57, Mar. 20
Powell Ltd., Gordon 57, April 3
Power, Alan J. 37, Feb. 14;
43, April 10
60, May 29
Power Lifts Ltd. 7, Jan. 24
PPG Industries USA 65, Feb. 7
Pratt Engineering Corp. Ltd., F. 50, Nov. 13
Pratt Precision Hyd. 7, Nov. 20
Precision Forge Co. 37, Nov. 27
Precision Grinding Ltd. 56, Oct. 23
Precisionlap Ltd. 55, June 12;
Precision Machining (Swindon) Ltd. 35, Jan. 24
Premax SA., Switzerland 49, Feb. 7
Press & Shear Machinery Co. Ltd. 61, Sept. 4
53, Jan. 10
Pressed Steel Fisher Ltd. 41, Jan. 3;
51, Jan. 31; 15, Oct. 30
Production Engineering Association 15, May 1
15, Aug. 28; 16, Oct. 16;
Production Tool Alloy Co. Ltd. 242, June 26
Protolite Ltd. 150, June 19
Pryor & Son Ltd., Edward 65, Feb. 7

Q
Qualcut Tools Ltd. 62, Nov. 6
Qualters & Smith Bros. Ltd. 20, Oct. 30
63, Dec. 11
Quickdraw Co. Ltd., The 61, Nov. 13

R
Ragen Precision Industries 33, Oct. 30
Ralston, D. H. 57, Feb. 21
Rank Organisation Taylor Hobson Division 43, Mar. 27;
47, Sept. 11
Rave, J. A. 53, Oct. 16
Raven, A. D. 49, April 10
Raychem Corporation of USA 7, Oct. 30
Raytheon Co., USA 7, July 24
Readings & Holland Bros. 63, Mar. 27
Recruitment of Personnel Ltd. 19, Jan. 3
Redman B & K Engineering Ltd. 49, Dec. 18
Redman Engineering Ltd. 56, Nov. 6
Redman Heenan International Ltd. 17, Nov. 6
Republic Tool & Manufacturing Co. USA 7, Feb. 7
Research & Projecting Institute USVD, Prague 7, Feb. 28
Revol Ltd. 7, May 15
Reynolds Metals Co. 7, Dec. 11
Rhodes & Sons Ltd., Joseph 204, June 26
Richmond Machine Tool Co. Ltd. (600 Group) 133, June 19
Ringway Machine Tools Ltd. 117, June 19
152, June 19; 242, June 26;
112, July 3; 101, July 10;
50, Sept. 11
51, Sept. 11
Rio Tinto Zinc Corporation Ltd. 23, June 5
16, Feb. 21
Roberts-Arundel Ltd. 59, Jan. 3
Rockwell Machine Tool Co. Ltd. 115, June 19
20, Jan. 17; 20, Jan. 24;
144, June 19; 152, June 26;
161, June 26; 173, June 26;
84, July 3; 101, July 3;
97, July 10; 47, Sept. 11;
58, Nov. 6; 15, Dec. 4;
43, April 10
Rolls-Royce Foundries 57, Jan. 10;
17, April 3
Rolls-Royce Ltd. 57, Jan. 10;
37, April 3; 15, April 10;
57, May 22; 144, June 26;
50, July 24; 7, Sept. 11;
17, Dec. 18
Rootes Motors Ltd. 15, May 15;
20, Nov. 20
Root-Lowell Manufacturing Company, USA 7, Mar. 27
Rotax Ltd. 43, Jan. 17;
128, July 3
30, Oct. 2
51, Oct. 23
Roto-Finish Ltd. 71, Jan. 10
Rowland & Co. Ltd., T. E. 61, Nov. 20
7, Jan. 17
Royal Aircraft Establishment 58, May 1
Royal Commission on Trade Unions and Employers' Associations 19, Jan. 31
15, June 12; 19, June 19;
19, Aug. 21
19, July 10
Royal Ordnance Factory 19, May 1
Royal Society 191, June 19
Rupert & Co. Ltd. 61, Jan. 31
Rutter Tools Ltd. 53, Jan. 24;
43, Jan. 31
Ryall, H. 177, June 19
Ryder & Son Ltd., Thomas 85, July 3; 91, July 3;
103, July 3
41, Sept. 4
71, Dec. 4
Ryemore Engineering Ltd. 71, Dec. 4

S
Safe Production Systems 63, July 17;
Salford Electrical Instruments Ltd. 62, Nov. 13
Salter, Dr. G. R. 52, April 3
Sanderson & Costin Ltd. 57, Jan. 17
Sandvik Steel Works, Sweden 20, Dec. 11
46, Dec. 11
Sandvik UK Ltd. 129, June 19;
107, July 3; 108, July 3
Sarr Engineering Services Ltd. 7, Oct. 2
Saunders Metal Products Ltd., N. 20, Sept. 18
SA Usines Balteau (Belgium) 57, Jan. 17
Scamp, Sir Jack 19, Mar. 27
Schachte, J. J. 45, Nov. 13
Schaffer, George H. 33, Oct. 30
Scharmann Machine Ltd. 217, June 26
61, July 17
Schrader's Son, A. 55, Jan. 24;
61, April 10; 53, June 12
Sciaky Bros. Inc. USA 7, Jan. 17
Sciaky Electric Welding Machines Ltd. 59, Oct. 23
19, Nov. 27
Scientific Control Systems Ltd. 17, Feb. 14
Scientific Instrument Manufacturers' Association 7, July 10
Scott, David 43, Jan. 24;
40, Feb. 14; 53, Feb. 21;
60, Mar. 6; 60, Mar. 13
Scottish Machine Tool (Agencies) Ltd. 20, May 22
71, May 22; 56, Oct. 23
Scottish Machine Tool Sales 63, Aug. 7
Scott Urquhart Ltd. 24, Jan. 31
Scraper, Terry 45, Jan. 17
Shepherd, Richard 87, April 24
Sedgwick Ltd. 68, July 10
Selectrons Ltd., USA 7, May 22
Selson Machine Tool Co. Ltd. 75, Jan. 10
49, Feb. 7; 120, June 19;
29, Oct. 30; 81, Dec. 4
Services Electronics Research Lab. 7, Oct. 16
Shaw and Sons Ltd., John 20, July 24
Sheet Metal Machinery Co. Ltd. 73, Jan. 10
65, April 17
Sheffield Twist Drill & Steel Co. Ltd. 236, June 26
The 59, Jan. 17; 129, June 19;
241, June 26; 96, July 3;
101, July 3
48, Dec. 11
Shell Chemical Co. P.M. Coffman 39, Aug. 7
Shell-Mex and BP Ltd. 7, May 29
Shepherd, Richard 20, July 17
Siemens Schuckertwerke 51, Nov. 13
Sigma Instrument Co. 48, Sept. 18
Simon-MEL Distribution Engineering 15, April 3
Simplex Electric Co. Ltd. 42, July 17
Slack & Parr Ltd. 63, Sept. 11
Slo-Syn 50, Nov. 13
Smart & Brown (Machine Tools) Ltd. 20, Aug. 7
Smith & Clarke Ltd., Tom 65, Sept. 4
Smith Engineering Works, Milwaukee, USA 52, April 3
Smiths Industries Ltd. 43, Jan. 31;
155, June 26; 164, June 26
Snow & Co. Ltd. 20, Sept. 11
42, Jan. 24
Sayder Corp. USA 204, June 26
Soag Machine Tools Ltd. 211, June 26; 50, Sept. 18;
183, June 19; 183, June 19
Societe Genevoise Ltd. 234, June 26
21, Sept. 25
Society of British Aerospace Companies 56, July 10
Society of Diecasting Engineers, USA 43, Jan. 17
Sogenique Ltd. 59, May 15
Solbraze Ltd. 59, May 15
Solex (Gauges) Ltd. 59, Aug. 14
Somers (Materials Handling) Ltd., W. 58, Aug. 28
Southern Tools Ltd. 67, Feb. 7;
61, April 3; 57, Sept. 11
33, June 12
Spandau-Lindner, Germany 31, June 12
Sparcatron (Manufacturing) Ltd. 84, July 3
86, July 3; 88, July 3;
63, Sept. 4
Speedfam Corporation 43, Dec. 11
Speedwell Gear Case Co. Ltd. 7, Oct. 2
Spencer Franklin Ltd. 59, Sept. 18
Spencer & Halstead Ltd. 51, Sept. 4
Speytec Ltd. 53, June 5
Spinner, Adolf 58, Oct. 16
Spiro Engineering Ltd. 60, July 24
S-P Manufacturing Corp., USA 59, Aug. 21
Square D Ltd. 64, Mar. 13
Staebler Jr., Christian 44, June 5
Stanhope Machine Tools Ltd. 20, Feb. 28
105, July 3; 106, July 3;
53, July 10
Stanislova, Joseph 49, Feb. 28
Stanley Machine Tool Co. Ltd. 246, June 26
104, July 3
Starr, Jack 20, May 29
Startrite Machine Tool Co. Ltd. 59, Jan. 31
225, June 26; 228, June 26;
115, July 3; 119, July 3;
120, July 3
Stat Systems Ltd. 105, July 3; 54, Sept. 11
Staveley-Asquith Ltd. 49, Mar. 13; 120, June 19
134, June 19; 158, June 26;
176, June 26; 207, June 26;
220, June 26; 228, June 26;
245, June 26; 96, July 3;
101, July 10; 61, July 17;
171, June 19
Staveley Machine Tools Ltd. 183, June 19; 251, June 26;
120, July 3; 52, Sept. 11
69, Jan. 31
Ste-Co. Products Ltd. 69, Jan. 31

Stein Atkinson Stordy Ltd.	20, Nov. 27
Steinmuller, L. & C.	44, Oct. 16
Stephen & Co. Ltd., R.A.	63, Nov. 6
Sterne & Co. Ltd., L.	39, May 29
Stoltenberg, John P.	56, July 10
Stone Manganese Marine Ltd.	7, April 10
	59, April 17
Strojimport	19, Oct. 9
Stubbs, Norman	16, Dec. 11
Studebaker-Worthington Corp., USA	55, May 22
Sullivan, Michael	19, Aug. 14
Sundstrand Corporation, USA	41, July 24
	42, Aug. 14
Susquehanna Corp., USA	7, Oct. 9
Sweden National Defence Factories	16, Oct. 9
Sweeney & Blocksidge (Power Presses) Ltd.	20, Oct. 9
Swift, Levick & Sons Ltd.	42, Aug. 7
Sykes Ltd., W. E.	171, June 26
	49, Sept. 11
Sykes Machine Tool Co. Ltd.	191, June 26
	192, June 26
Sykes, N. W.	38, June 5
Symonds (Distributors) Ltd.	60, Jan. 17
	56, Nov. 6

T

T. & E. (Machine Tools) Ltd.	69, Feb. 21
	63, April 17
Taft-Peirce Mfg. Co., USA, The	47, Oct. 9
Tap & Die Corp., Ltd.	19, Sept. 4
Tarex (England) Ltd.	40, Oct. 23
Taylor Ltd. B. & R.	20, Oct. 9
Taylor & Challen Ltd.	61, Mar. 20
	57, Jan. 10
Taylor, J.	37, Aug. 7
Tecalemit (Engineering) Ltd.	39, July 17
Teledictor Ltd.	62, Nov. 20
Telemecanique Electrique (GB) Ltd.	34, May 8
	127, July 3
Templair (Sales) Ltd.	44, Oct. 30
Tesla NC Equipment	29, Oct. 30
Thoka Machinery Supplies Ltd.	65, Mar. 13
Thomas, Fred	61, Feb. 7
Thompson, J. R.	144, June 26
Thompson Pipework & Ordnance Division, John	41, Jan. 24
Thorn Automation Ltd.	7, July 10
Tilghman Wheelabrator Ltd.	61, April 3
Times Machinery Co. Ltd.	177, June 19
	29, Dec. 18
Timken Roller Bearing Co.	19, May 13
Timms, Dr. Cecil	15, Oct. 16
Tollbridge Machine Tools Ltd.	61, July 24
Toolmasters Ltd.	41, Mar. 27
Tool Research and Eng. Corporation	7, Sept. 18
Toolworks Ltd.	45, June 12
Torrington Manufacturing Co., The	24, Mar. 27
Towler Hydraulics Ltd.	48, Sept. 25
Toyota Machine Works Ltd.	69, Dec. 4
Trades Union Congress	19, Jan. 24
	15, Mar. 6; 17, May 29
Transhandling Greenman-Berger	17, Aug. 28; 15, Sept. 11
Trend Industrial Equipment Ltd.	62, Nov. 6
	20, Jan. 10
	59, Jan. 17; 64, Mar. 13
	85, Dec. 4
Trennhaeger (Great Britain) Ltd.	50, Aug. 21
	64, Dec. 11
Try European Machines Ltd.	20, Sept. 4
	85, Dec. 4
Tubes Ltd.	19, April 10
	16, May 15
Turbo Tools	61, Aug. 28
Turco Products, USA	44, June 5
Turner Machinery Co.	38, Nov. 27
Turner (Machine Tools) Ltd., Henry	171, June 26

U

Udal Ltd., J. P.	55, Jan. 24; 44, Sept. 4
Ueda, Terumori	55, June 5
UK Atomic Energy Authority	61, Nov. 13
Ultraseal of Slough	73, April 24
Ultrasonoscope Co. (London) Ltd.	16, July 10
Unbrako Steel Co. Ltd.	7, Oct. 23
Unimatic Engineers Ltd.	45, Jan. 17
Union Carbide Corporation, USA	16, June 12
	20, Sept. 4
	7, Jan. 24
	7, May 29
Union Carbide U.K. Ltd.	7, Feb. 7
	7, Nov. 27
	7, Dec. 11
United States	17, Aug. 21
Universal Grinding Wheel Co. Ltd.	39, Jan. 17
Universal Fisher Engineering Ltd.	51, Oct. 9
Universal Metal Finishing (USA)	19, Sept. 25
University of Birmingham	16, Oct. 2
University of Bridgeport, USA	7, Dec. 11
University of Pennsylvania	7, July 24
University of Strathclyde	19, Nov. 6
Urquhart Ltd., Scott	173, June 26
Urvick Technology Management Ltd.	102, July 3
US Industries Inc. Engineering Ltd.	17, June 12
	43, Jan. 17
	67, Sept. 18; 49, Oct. 2
US Industries Incorporated, USA	50, Nov. 6
UVA Products Ltd.	46, Nov. 27
	16, Nov. 13
	59, Aug. 28

V

Vacu-Blast Ltd.	63, Sept. 4
Valeport (Tools) Ltd.	60, Jan. 3
Value Engineering Association	56, Feb. 28
Vanco Machine Co. Ltd.	20, Oct. 16
Vanco Mopps & Sons Ltd., L. M.	63, May 29
	23, June 5
Vaughan Associates Ltd.	137, June 19
	175, June 19; 176, June 26
	98, July 3; 104, July 3
	113, July 3; 53, Sept. 11
Vaughan & Co. Ltd., Edgar	7, Feb. 14
Vaughan Ltd., F. E.	71, May 22
Vauxhall Motors Ltd.	49, Mar. 13
	41, May 29
Verdict Gauge (Sales) Ltd.	71, Dec. 4
Vernon Instrument Co. Ltd.	193, June 19
Vero Machine Tool Co. Ltd.	50, July 24
	53, Jan. 24
	57, May 15; 116, June 19
Vero Precision Engineering Ltd.	225, June 26
Verro Ltd.	59, Oct. 9
Verson Allusel Press Company	63, Feb. 21
Vickers Division of Sperry Rand	69, Feb. 21
Vickers Ltd.	34, Nov. 27
Villiers, Charles	135, July 3
	17, Sept. 18
Volapray Ltd.	17, May 22
	60, Sept. 18

W

Wadkin Ltd.	16, Jan. 10; 128, June 19
	157, June 19
Waite, Robert E.	219, June 26
Walkers (Century Oils) Ltd.	38, Jan. 24
Wallwork & Co. Ltd., Henry	7, Sept. 4
Waltec Machine Tools Ltd.	42, July 17
	52, June 5
Ward Grinders Ltd., Ward controlled spiral grinder	20, Nov. 13
Ward & Co. Ltd., H. W.	19, July 24
Ward Limited, Thos. W.	60, Sept. 18
Waring, J. D.	57, Mar. 6
Warner & Swasey Co., USA	44, Nov. 27
Warner Swasey Asquith Ltd.	87, April 24
	17, Aug. 28
Warren Ltd., A. P.	73, Jan. 10; 63, April 17
	51, Sept. 25; 44, Oct. 30

Warren Ltd., W. H.	20, Sept. 18
Watson Manasty & Co. Ltd.	59, Jan. 3
Watts Ltd., William	20, Nov. 13
Weatherley-Cincinnati Ltd.	206, June 26
	101, July 3; 44, Aug. 28
Wedgwood Benn, Anthony	17, May 22
	15, Aug. 7
Welding Controls Ltd.	60, Sept. 18
Welding Equipment Service Co. Ltd.	63, Nov. 6
Welding Institute	52, May 22
Weldless Steel Tube Co. Ltd.	7, Mar. 6
Wellman Incandescent Furnace Co. Ltd.	7, Mar. 13
	16, Aug. 28
Wells-Krautkramer Ltd.	61, Sept. 4
Welwyn Tool Co. Ltd.	59, May 15
Wendelburg, Robert W.	51, Dec. 11
Wessex Electronics Ltd.	46, Aug. 14
West Midlands Gas Board	33, Dec. 18
Westhoff, Donald R.	41, April 10
Westhoff Tool and Die Co., USA	41, April 10
Westinghouse Electric International Co., USA	7, July 10
Westinghouse Research Lab. USA	7, Oct. 16
Weyburn Engineering Co. Ltd.	63, Feb. 21
Weyside Engineering Ltd.	29, Dec. 18
Wheeler Systems Ltd.	234, June 26
Whessoe Ltd.	7, Dec. 4
Whirlpool Corporation	34, Nov. 27
White & Sons, Thos.	48, Nov. 6
Whitney Corp., USA, W.A.	51, Aug. 7
Whybrew, E. G.	21, Mar. 27
Wickman Ltd.	140, June 19
	159, June 19; 153, June 26
	155, June 26; 156, June 26
	189, June 26; 194, June 26
	225, June 26; 247, June 26
	89, July 3; 111, July 3
	53, July 17; 51, Sept. 11

Wickman Machine Tool Group (English machines)	17, May 15
Wickman Machine Tool Sales Ltd. (foreign machines)	20, Jan. 10
	144, June 19; 241, June 26
	90, July 3; 49, Sept. 18
	61, Nov. 20; 43, Dec. 11
Wickman Scrivener Ltd.	15, Oct. 23
Wickman Wimet Ltd.	143, June 26
Wickstead & Co. Ltd., Charles	59, Aug. 21
	60, Sept. 18
Wiggin & Co. Ltd., Henry	7, Sept. 25
Wilbraham & Smith Ltd.	23, Jan. 31
Wild Ltd., Thos. C.	46, Aug. 14
Wilkins & Mitchell Ltd.	205, June 26
Williams, T. E.	19, Sept. 4
Wilson Automation, USA	41, May 29
Wilson & Wylie Engineers Ltd.	16, Nov. 13
Wilson, Harold	15, Feb. 21
Winn & Co. Ltd., Charles	93, April 24
Winna Plant & Chemicals Ltd.	33, Aug. 14
Wofac Corporation, USA	54, Jan. 31
Wolf Electric Tools Ltd.	49, Aug. 14
Wolsley Engineering Ltd.	60, Sept. 11
Woodall-Duckham Ltd.	7, May 15
Woods, Peter F.	53, Jan. 10
	54, Feb. 28; 53, Mar. 13
	59, Mar. 27; 47, April 17
	51, July 24; 50, Oct. 9
Work Factor Associates	35, Oct. 30
Wright Electric Motors (Halifax) Ltd.	16, Nov. 13
Wurm & Co. KG, Germany	59, May 15
	37, June 5

X

Xerox Corporation Communications	54, Oct. 9
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Y

Yarker Ltd., Ken	17, Sept. 4; 65, Sept. 4
	19, Dec. 18
Yates, M. D.	49, May 29
Youngman, Robert	49, April 17

